Central European Forum
For Migration Research

Środkowoeuropejskie Forum
Badań Migracyjnych

CEFMR Working Paper
4/2004

INTERNATIONAL MIGRATION SCENARIOS FOR 27 EUROPEAN COUNTRIES, 2002-2052

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Central European Forum for Migration Research (CEFMR) is a research partnership of the Foundation for Population, Migration and Environment, Institute of Geography and Spatial Organization of the Polish Academy of Sciences and the International Organization for Migration

International Organization For Migration

Foundation for Population, Migration and Environment

Institute of Geography and Spatial Organisation, Polish Academy of Sciences

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INTERNATIONAL MIGRATION SCENARIOS FOR 27 EUROPEAN COUNTRIES, 2002-2052

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Abstract: This paper summarises assumptions on future developments of international migration in 27 selected European countries over the period 2002-2052. The assumptions have been developed to serve as an input for the forecasts and simulations of population and labour force developments in Europe. Firstly, selected theories of international migration are discussed, together with the evaluation of their applicability to migration forecasting. Subsequently, the importance of various push and pull migration factors is assessed, with a special focus on migration policies. Finally, after an overview of recent migration trends in Europe, three knowledge-based scenarios for the future are made and subsequently quantified. The scenarios are made separately for the flows among the 27 countries under study and for the net migration with the other parts of the world.

Keywords: international migration, migration forecasting, Europe

Acknowledgements
The research published in this paper has been funded by the Foundation for Population, Migration and Environment (BMU-PME) from Zurich, within a grant for a project "Impact of international migration on population dynamics and labour force resources in Europe" awarded to the CEFMR.

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ISSN 1732-0631
ISBN 83-920313-8-5

Contents

1. Introduction

This study has been conducted within the framework of the research project *Impact of international migration on population dynamics and labour force resources in Europe*, financed by the Foundation *Population, Migration, Environment* from Zurich.

The paper summarises assumptions on the future developments of international migration in 27 selected European countries over the period 2002-2052. The assumptions have been developed to serve as an input to the forecasts and simulations of population and labour force developments in Europe, prepared by the Central European Forum for Migration Research. In geographic terms, the analysis covers 23 countries of the European Union (without Cyprus and Malta), two EFTA countries (Norway and Switzerland), as well as two accession countries (Bulgaria and Romania).

Hypotheses regarding the future shape of international migration are complementary to the fertility and mortality scenarios prepared within the framework of the same research project, covered by a separate study (Bijak 2004). The story underlying international migration scenarios is not only a demographic one, but also to a large extent economic, political, sociological and ethnographic. Moreover, migration is a phenomenon characterised by a much higher level of uncertainty and much more controversial in terms of the expectations for the future than the purely demographic components of population change. To incorporate this uncertainty in the forecasts, three scenarios of international migration have been developed: Base, High and Low. These three variants correspond with different assumptions on push and pull factors of two major types: socio-economic development of particular countries, as well as the expected future migration policies in Europe. The scenarios are based on the analysis of the past trends, as well as on the expert knowledge and the expectations with respect to the future migration developments. Due to the different factors underlying migration between the countries under study and migration from the remaining countries of the world, in this study these two components of overall migratory flows are treated separately.

The analysis concentrates on registered long-term international migration and excludes all other forms of the phenomenon, including commuting, pendulum migration, as well as all irregular forms of population movements. With respect to the definition of migration, given the lack of international consistency in that matter, we assumed the definitions adopted by particular countries. Although we are perfectly aware that these definitions are not comparable, there is no other universal and reliable source of migration data for Europe.

In Section 2 of this study, the most important theories of international migration, originating from various disciplines of science, are discussed. The overview is concluded with a discussion of the applicability of the theories in migration forecasting. Section 3 is devoted to the description of various push and pull factors influencing international migration in Europe.

The discussion focuses on the role of political changes and migration policies, ethnically motivated migration and migrant networks, as well as the impact of the economic factors on international population movements.

Section 4 contains a description of the recent trends in international migration in Europe. To start with, this section includes a brief discussion of the issues of quality and comparability of available international migration data. The core of the section is devoted to the overview of migration patterns in Europe, analysing both the historical patterns (since 1945) and the most recent migration developments. The empirical study of the migration trends is concluded with an identification of the major directions of population flows concerning the European countries under study.

In two subsequent sections of this paper, the fifth and the sixth one, scenarios of international migration developments are presented, respectively among the countries under study and the population exchange with the rest of the world. In each of the sections, the knowledge-based expectations for the future developments of international population flows are accompanied by a detailed description of the algorithms used for their quantification. Section 5 includes additional qualitative assumptions on the expected future developments in the area of the free flow of persons in Europe. Finally, section 7 presents a summary of the outcome of the study, together with the most important conclusions and some additional remarks about the possible future migration developments.

The data, on which the analysis is based, come from two major sources: the Council of Europe yearbooks *Recent Demographic Developments in Europe* (1997-2003) and from the NewCronos database of Eurostat. The data on economic indicators come predominantly from the publications of the World Bank (2003) and United Nations (2003).

2. International migration theories and their use in forecasting

This section offers an overview of the theories of international migration developed within the framework of various scientific disciplines (economy, sociology, geography and others). The usefulness and applicability of these theories for the forecasting of international migration is discussed in the final part of this section.

2.1. Overview of international migration theories

First attempts aimed at setting out the migration theory dates back to the end of the 19th century (Ravenstein 1885, 1889). According to Ravenstein, the most essential motivation of migration is of economic nature, with the flow of migrants observed mainly from rural to urban areas. Zlotnik (1998) noted that conceptual approaches of migration taken up about a hundred years later do not differ in principle from those by Ravenstein, although the degree of their complexity, as well as an extent to which they reflect reality have increased significantly. Due to the variety of other important aspects of phenomena (demographic, sociological, political and other) no comprehensive theory has been formulated up to date. Nevertheless, individual disciplines offer their own explanation of events, which put together comprise the possible outline of such a theory. Significance of certain factors depends on the country under study, so there is no use attempting to estimate their relative values in general.

The existing literature in its major part refers to internal migration, whereas international migration has been paid more attention only recently. A remarkable growth of international migration both in Europe and all over the world during the latest decades has resulted in a dynamic progress of research. Comprehensive reviews of the migration theories were presented by Massey et al. (1993), Greenwood (1992) and Zlotnik (1998). Usefulness of the theories for migration forecasting models was evaluated by Öberg and Wils (1992), as well as by Kupiszewski (1996).

Although some features of the processes described below apply both to official and unofficial migration, in the analysis the emphasis is put on legal migration (measured in the official demographic statistics), unless stated otherwise.

2.2. Economic theories of migration

From the economic point of view people are perceived as potential labour force. International migration represents therefore the international flow of a production factor. This approach is a cornerstone of all economic theories of international migration. Following the *classical macroeconomic theory of migration* (Lewis 1954), derived from the concepts of Adam Smith,

migrants move from regions, with surplus of labour to regions with deficit of labour. Hence, migration itself is perceived exclusively as a mechanism which equilibrates labour markets.

The neo-classical economic theory of migration has been set out in two versions: microeconomic and macroeconomic, both of which offered slightly more sophisticated approach. According to the macroeconomic theory (Lewis 1954; Harris, Todaro 1970; Todaro 1976), movements of labour (or capital) are caused by the differences in wages on the geographically distinct markets. The differences lure workers from lower wage markets (countries) with excess labour supply to emigrate and benefit from higher wages somewhere else. Labour flows into the higher wage markets add to the labour supply, thus lowering wages; the process has an opposite effect in the country of origin. According to the theory, the movements should take place until the difference in wages diminishes to the level of costs of migration. The return migration fails to be explained on the basis of this theory.

The neo-classical microeconomic theory allows for the assessment of individualised costs and gains associated with migration (Sjaastad 1962; Todaro 1976). At the microeconomic level, international migration constitutes a form of an investment rewarded with a difference in income earned in the place of origin and destination. Migrants aim at maximising their incomes, which means maximisation of profit on investment in migration. Factors such as unemployment level, migration costs and additional qualifications gained, have to be included in the migrants' calculations. Illegal migrants should also consider risk of possible deportation. Quantification and calibration of such a theoretical approach faces numerous problems which mainly involve necessity to quantify the variables concerned. This theory also ignores the political, social and economic conditions that influence decisions regarding migration (e.g. restrictive admission polices applied by destination countries, individual and family preferences of migrants, as well as monetary and non-monetary costs of integration in a new country) and assume, quite naively, homogeneity of labour. These shortcomings make the predictions based on the model inconsistent with empirical results on the macro scale, (Massey et al. 1994, after Zlotnik 1998: 4). Concluding, "there is ample evidence that wage differences play a significant role in determining the size of migration flows in many settings, so that it is widely accepted that the existence of such differences is a necessary, albeit not sufficient, condition for the migration of labour to occur" (Zlotnik 1998: 4).

The two theories discussed above have been derived from the assumption that migrants maximise their incomes. The so called *new economic theory of migration* (Stark, Bloom 1985; Stark 1991) offers another approach. The authors argue that migrating units or the ones just taking a decision on migration are not individuals but entire households (families) which try to diminish the risk of losing revenues. Diversifying labour markets, where the household members operate and gain capital, allows a given household (family) to obtain more economic security for the future. Hence, migration can be seen here as a form of insurance. This theory allows to explain, why international migration is continued even if levels of salaries in the place of origin and destination are similar. Stark and Taylor (1989) have taken a

step forward by saying that migration decisions are influenced by relative differences in revenues of migrating and non-migrating families. The former families try to gain economic advantage over the latter ones. Implications for the whole families, rather then individuals, can be also interesting within the theoretical framework of the neoclassical model (Zlotnik 1998).

According to *the dual labour market theory* (Piore 1979), migration is driven by the demand for labour force, as well as by recruitment practices of destination regions, rather than by differences in salary levels observed between the places of origin and destination. According to this theory, wage is not just an offshoot of supply and demand but it also states the status of the worker. Therefore, the relative wage for jobs at the bottom of hierarchy cannot be lifted even in the face of shortages in supply, as such change would modify the structure of employment hierarchy. Once the shortages occur, immigrant workers from less developed countries, for whom the status in the society of the destination country is of little importance, while the wages, higher than in the country of origin, are essential , can comfortably fill the vacancies. Other factors taken into account by the theory are problems with motivation of nationals occupying bottom-level jobs with no prospects upward (not valid in the case of immigrants), and segmentation of the labour market progressing together with technological advancement. In this theory, the labour market consists of two separate segments: first one with stable jobs requiring high skills, appropriately remunerated, and the second one with low-skilled poorly paid jobs, vulnerable to reductions due to business cycle. As the natives are not willing to take jobs in the second segment, the excess demand is satisfied with foreign supply. Some authors (e.g. Zlotnik 1998; Portes, Bach 1985; after Massey 2001) also suggest the existence of the third segment, operating in the ethnic enclaves. Jobs in this segment are at the bottom of earnings and status hierarchy, but unlike the jobs of the second segment, they give returns to education and experience, and real prospects for upward mobility.

Following *the world system theory* (Wallerstein 1974), international migration is a consequence of capitalist markets development and is inherent to the process of capital and investments flows. In more developed countries, technological progress and structural change downgrade the low paid jobs (i.e. in manufacturing), what creates the excess demand for labour. At the same time in less developed countries a slow transformation into more capital-intensive techniques of production (due to geographical expansion of the more developed countries, i.e. penetration in search for new markets) pushes workers first into local urban areas. When the latter cannot absorb the incoming labour, the redundant workers are pushed abroad, in an effort to avoid social and economic deprivation and marginalisation in the country of origin. Migration of this type happens to be facilitated by the links (cultural, linguistic, transportation, communication, etc.) between the country of origin and destination. According to this theory, migration is more likely to occur between past colonial powers and their former colonies (Sassen 1991, after Zlotnik 1998).

2.3. Sociological theories of migration

A basic sociological conception, formulated by Stouffer (1940, 1960), is *the intervening opportunities theory* linking a distance at which migration takes place and a number and quality of factors attractive to the migrant between the place of origin and destination. According to Termote (1967), this theory is equivalent to *the spatial interactions model* developed by geographers.

A quintessence of sociological approach is the theory of Lee (1966), based on the findings of Stouffer. It says that migrants are susceptible both to factors perceived by them as the *push* ones (unfriendly) at the origin and to those perceived as the *pull* (attracting) ones at the destination. The relative strength of the push and pull factors is also responsible for the characteristics of migrants. If the pull factors at destination are dominant, migrants tend to be positively selected in terms of education, skills, motivation, etc. Negative selection occurs when push factors in the place of origin are playing main role in the decision. The costs of migration (financial, psychological and other) tend to weaken the strength of the push and pull factors, this tendency however may be diminished by the existence of networks and supporting institutions, discussed in more detail by later on. It is worth noting that this theory is of a very general nature. Since the push and pull factors are not of universal meaning, they may be defined by researchers in different ways depending on needs typical for the societies under study. Iglicka (1995) points to the fact that not the push and pull factors themselves are the determinants of international migration, but rather their perception by potential migrants.

According to sociologists (Taylor 1986), the existence of a *network* of family and friends is of crucial importance to potential migrants, as it diminishes monetary and social costs and risks of migration. Empirical evidence suggests that migrants often rely on assistance of relatives or countrymen, while establishing new life at the destination (Zlotnik 1998). The networks were identified as a form of social capital (Massey et al. 1987, after Massey 2001), referred to as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network or more less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu, Wacquant 1992: 119, after Massey 2001: 9832), convertible into other forms of capital. The networks are on one hand results of migration (as any single act of migration adds to the capital for the acquaintances of those who emigrated), and a propeller of migration on the others (the greater the capital, the lower the costs of migration).

The *institutional theory* gives consideration to the role played by institutions and organisations as migration supporting facilities. The non-governmental organisations, likewise networks of family and friends, furnish relevant information, assist in finding accommodation and job at the destination and finally, render help in critical situations and thus diminish the risk associated with migration. At the same time, numerous organisations

operate on the market earning their profits on migrants legally (travel agencies, airlines, railways, sea carriers and other transport agencies which often combine services, barrister's offices specialised in migration-oriented issues, etc.) or illegally (organisations of criminal nature which specialise in arranging illegal trafficking routes and smuggling migrants; more in Laczko 2000). All the mentioned organisations make efforts to intensify migration in order to maximise profits. Salt (2000) stresses the significant role of such organisations and institutions in the migration globalisation process that is observed in the recent years all over the world.

According to the assumptions of the *cumulative causation theory* (Massey 1990), international migration is deemed to be a consequence of changes in the social and cultural environment of the places of origin and destination. Return migrants have at their disposal bigger capitals than those possessed by non-migrants, which provides them with possibility of better dwelling, investment in small local family enterprises or purchase of land. This makes them being perceived by non-migrant population as a privileged group, which in turn is an object of aspirations of a growing number of persons from the immobile group. Migration is thus perceived as an activity generating a positive net balance, which creates the culture of migration. Many elements of this theory appear within the concept of the incomplete migration set forth by Okólski (Okólski 2000; see also: Iglicka-Okólska 1998; Iglicka et al. 1995; Iglicka et al. 1997; Okólski 1998; Jaźwińska, Okólski 2001).

2.4. Migration theories based on other sciences

Geographers often perceive migration as a process associated with a distance (*spatial interactions models*, Wilson 1967, 1970). Another useful approach has been based on the assumption that migration can be analysed as a process of diffusion of innovations. Introducing a concept of spatial barriers into the modelling of spatial interactions (migration) is particularly useful from the point of view of international migration, since state borders often constitute significant barriers. So far such models have been applied mainly to internal migration.

The central theory of migration developed on the grounds of geography is *the theory of migration transition* (Zelinsky 1971). This theory recognizes five types of migration and two types of substitutes of migration and, by analogy to the theory of demographic transition (Lebhart 2002), certain variable levels of intensity of each of the migration types are defined, depending on a phase of development of the population system. This theory also concerns internal migration and has very limited the explanatory values, as the author has ignored the processes of suburbanisation and contrurbanisation, very important in the explanation of contemporary internal migration of population in the developed countries (Fielding 1982, 1986, 1989; Champion and Vandermotten 1997; Kędelski 1985; Rees, Kupiszewski 1999; Grzeszczak 1996, 2000). Commuting taken into account by Zelinsky (1971) can be

interpreted, with certain degree of good will as taking into account suburbanization and counterurbanization, for which such a form of population mobility is typical.

The theories mentioned above do not suffice to explain fairly low international mobility of people in the face of current disparities between geographically different locations. According to Zolberg (1981, after Zlotnik 1998) a reasonable supplement would include the actions of political and social systems. Although they do not prevent natives from choosing better conditions abroad (in search for maximising one's profit), they often effectively stop foreign individuals from settling in a country, reducing migration flows. Highlighting the possible conflict of interests between the individual and a state gives better understanding of political aspects of migration and the ongoing processes concerning current migration policies. Zolberg (1981) also points out the role of political systems in conflicts that create mass migration flows refugees, internally displaced persons.

Another interesting theoretical proposition is the migration systems theory, developed by Kritz, Lim and Zlotnik (1992). The theory distinguishes a migration system consisting of a group of sending and a group of receiving countries, recognizing that there is a considerable interdependence between the migration experience of the groups. Each of the countries may belong to more than one migration systems. This theory can be especially useful, whenever demographic forecasts for large supranational areas are prepared, due to providing theoretical grounds allowing to classify particular countries into clusters. Zlotnik (1992) sets forth, how migration systems should be defined in practice. However she noted that this framework is in the formative stage, despite its valuable descriptive properties, and that the lack of comparable and comprehensive data on international migration is serious obstacle in advancing this approach further (Zlotnik 1998).

Knowledge of migration history can be used to forecast the future trends. Although forecasting *per analogiam* to historic processes fails to be very precise since continuous changes take place both with reference to historic and economic conditions, geopolitical situation, as well as to their perception and evaluation, this method is frequently applied due to its simplicity. It may also be worth mentioning that demographers themselves often analyse socio-demographic features of migrants, with particular regard to their age structures (Rogers, Castro 1981a, b, c), although such analyses can not be seen as proper theories of international migration.

2.5. Usefulness of international migration theories for forecasting

The existing theories, providing explanations at different levels (micro and macro), have been developed on the basis of various disciplines, particularly economics, geography, sociology and behavioural sciences. Nonetheless, it is possible to identify several common features of the theories: (1) none of them is fully comprehensive; (2) international migration theories do

not differ in principle from internal migration theories (Willekens 1995); (3) the theories ignore forced migration which constitutes a remarkable part of international migration; (4) they do not take into account an impact of government policies on international migration. Moreover, the migration processes are so complex that the existing theories provide only partial explanations, focusing on selected, often narrow, aspects. The existing theories ignore problems having an essential impact on international migration, such as: political instability, ethnic composition of population in sending and receiving countries, historic ties, natural environment quality or life quality.

Hence, creating scenarios of changes in international migration faces a serious problem: the international migration theory is relatively poorly developed, often fragmentary and, in the opinion of a number of specialists, not very useful to forecast migration dynamics (Öberg and Wils 1992). Such a view was shared by Kupiszewski (1996) in the analysis of possible development trajectories of international migration for the EU population forecasts. This standpoint was also indirectly shared by de Jong and Visser (1997), the authors of international migration scenarios used in the 1995 round of population forecast prepared by Eurostat, who provided the review of the existing international migration theories, but did not make any reference to them when setting out the scenarios. Salt and Singleton (1995) in their study presented a complex, theoretical model of international migration that, in the opinion of the authors, provides a framework for numerical forecasts. In practice, the Salt and Singleton's model is difficult to apply as it is formulated in very abstract terms. Furthermore, due to a complex typology of migration flows, the model shall demand a significant amount of information which are currently either unavailable or seriously biased. An attempt to calibrate the model was declared by Eurostat (van der Gaag et al. 1999), but no results have been published so far. As a matter of fact, only the migration systems theory can be useful for forecast purposes, however, only in the process of identifying supranational regions where the biggest migration flows are observed.

Numerous attempts to forecast migration between the EU members and pre-accession countries have been based on various migration theories, in principle to a relatively small extent. These attempts have mainly focused on simple econometric models, which mainly relate net migration or stocks of foreign population in destination countries to difference in income between sending and receiving countries (Franzmeyer, Brücker 1997; Orłowski, Zienkowski 1998; Brücker 2000; Brücker et al. 2000; Sinn et al. 2000; Fertig, Schmidt 2000; Zienkowski 2001). Such a narrow approach to migration theories, reduced to purely monetary aspects, likewise in the neoclassical economic theory of migration, often leads to forecasting results bearing very high levels of errors (Kupiszewski 2001).

To summarise: existing theories of international migration do not offer a decisive help in the forecasting of international migration, however, forecasters should use them as much as possible while setting the scenarios of future changes in international migration. The most useful is the sociological perspective examining push and pull factors. The analysis of these

factors helps to understand the migration behaviour of populations, however, it is sometimes difficult to quantify the impact of these factors on migration streams. In the next section we will examine the push and pull factors which, in our view, impact the migration flows within and to Europe.

3. Push and pull factors of international migration

3.1. Political and migration policy factors

The push and pull factors determining international migration (see Section 2.3) can be further divided into two major types: the *hard* and the *soft* ones (Öberg 1996). Complex humanitarian emergencies and catastrophic events, like armed conflicts or environmental disasters belong to the former group, while issues like poverty, persecution, social exclusion, unemployment, etc. – to the latter one. Political developments thus constitute either *soft* or *hard* determinants, depending on the particular circumstances. In contemporary Europe, most of the political factors can be attributed to the *soft* group, apart from dramatic events of the wars on the territory of the former Yugoslavia and in Chechnya.

In the past fifty years, apart from the migratory outcome of the process of decolonisation, the majority of the political factors of international migration in Europe concerned either the socialist countries of the former Soviet bloc, or the hard-line dictatorships in countries like Greece, Portugal and Spain until the mid-1970s. In both cases the democratisation processes led to an increase in migratory flows, although in different directions. Fall of the regime of the 'black colonels' in Greece, the Carnation Revolution in Portugal (1974), as well as the death of Franco in Spain (1975) caused massive returns of the former political emigrants to these countries. Adversely, the political system change taking place in the countries of Central and Eastern Europe between 1989 and 1991, caused a substantial outflow of the population. Korcelli (2000) noted that this explosive outflow was possible because of simultaneous existence of two migration factors: political instability pushing migrants out and liberal immigration policy in Western Europe. Another explanation of this phenomenon is that in the socialist times people were to a large extent deprived of the right to emigrate freely and the large scale of emigration was in fact a realisation of deferred demand. With the exception of the periods of political and social unrest, emigration from the countries of the former Soviet bloc was rather limited in scope (see further in Section 4.2).

Apart of the demise of socialism in Central and Eastern Europe, the most important political factor shaping migration in Europe during the 1990s were the armed conflicts in the former Yugoslavia, which caused many internal and external forced displacements of people from Bosnia and Herzegovina, Croatia, as well as from Kosovo. During the war, the refugees have been heading mainly to the countries of Western Europe, most numerously to Germany. According to UNHCR (2004), the number of refugees from Bosnia and Herzegovina reached a million persons shortly after the war ended (data for 1996), while the number of refugees from Croatia – nearly 350,000 (data for 1997). It is worth noting that refugees account for about a half of the total number of the population that was forcibly displaced during armed conflicts in these countries, the second half being comprised of the internally displaced persons (IDPs) (UNHCR 2004).

In the decade that followed the fall of the Iron Curtain in Europe, some other political factors appeared to be very important in determining the shape of international migration flows. For example, political factors related to the insufficient minority rights were underlying the emigration of ethnic Russians from Latvia and Estonia, as well as the emigration of ethnic Turks from Bulgaria (see Sections 3.3, 4.2 and 4.3). The war in Chechnya resulted in a substantial outflow of asylum seekers from the Russian Federation. Over the period 2001-2003, some 10,125 applicants for asylum in Poland came from Russia, constituting over 60% of all applicants (URIC 2004).

Contemporarily, admission of new members to the NATO, as well as the enlargement of the European Union seem to be the factors increasing the sense of security and political stability all over the continent. In that respect, these events will surely bring the reduction of politically motivated international migration in Europe. One should not, however, forget that some regions are still lacking stability, like these parts of the former Yugoslavia (Bosnia and Herzegovina, Kosovo), where the presence of international administration and armed forces suppressed, yet not eliminated, the existing ethnic tensions. Also the post-Soviet space is lacking political stability, which may have an impact on the European migration scene in the future. In this case, issues like the unresolved conflict in Chechnya, autocratic regime in Belarus, hindered democratisation processes in Russia, as well as political tensions in Ukraine, especially between the Eastern and Western parts of the country, may be potentially significant factors shaping population flows in Europe.

Apart from the political determinants, migration policies constitute another important factor of international migration. The developments of migration policies and their impact on migration in Europe has been discussed in length elsewhere (Kicinger, Saczuk 2004) and the detailed analysis will not be therefore repeated in the current study. Nevertheless, the importance of the policy factor in shaping population flows is contemporarily undisputable, as international migration is the area in which the institutional policy framework has a direct effect on the demographic phenomena. Most notably, migration policy plays a key role in determining the magnitude and patterns of international population flows reconciling a strong, incentive to migrate due to the existing economic disparities between countries and reluctance to increase foreign populations in affluent European countries countered by the ever more restricted opportunities to migrate (Meyers 2000). This is especially true as the developed countries try to maximise the extent to which international migration is controlled through the policy measures. Contemporarily, the general migration policy in Europe can be summarised under the following headings:

- Limiting the abuses of the existing asylum systems, resulting in a very strict interpretation of the Geneva convention;
- Combating illegal immigration and strengthening border control, notably within the Schengen zone;

- Regularisation programmes for irregular migrants in Southern Europe;
- Introduction of different forms of selective immigration policy, resulting from structural labour shortages in certain sectors economy. This applies both to the highly-skilled specialists (ICT, medicine and biotechnology), as well as to the low-skilled workers (agriculture, construction, tourism and household services);
- Attempts to integrate the already admitted immigrants with the host society.

The recent policy developments in Europe can be therefore seen as the result of two complementary tendencies: selective openness of the labour markets for immigrants with the required qualifications, combined with ever stricter border control and management of the migration flows, in order to combat all forms of irregular migration. In general, the term "migration management" becomes a key phrase in describing current tendencies in migration policy developments, aimed not at bringing the population inflow down to zero (which is neither feasible, nor desirable), but rather at giving it a required shape.

Needless to say, migration policy developments are to a large extent unpredictable, as is the economic and political setting in which the policy regulations are created, which apart from the current socio- economic conditions includes the current pressure of the public opinion. Nevertheless, one feature seems visible, namely the parallel developments of migration policies in all European countries. This is not only due to creating the common framework at the EU level, but also due to the fact that if migration policies get more restricted in one country, more migrants would choose other destinations, enhancing the pressure on constraining the inflow also in these alternative destinations (de Jong, Visser 1997). This presumption allows for treating the European countries under study as a system with common migration policy features, changing along the same lines roughly at the same time. Naturally, the direction of future policy changes, either to more liberal, or more restrictive, depends on various factors, of which three seem to be of a key importance: the volume of immigration, social disparities and unemployment levels (Massey 2003). In that respect, migration policies can be to some extent a response for the changing social and economic conditions in the countries under study, discussed in brief in the next subsection.

3.2. Economic factors of migration

The literature on economic factors of international migration is plentiful and varied. Recently, an overview and verification of the impact of major economic determinants of migration has been undertaken by Jennissen (2004). Most importantly, he confirmed the hypotheses on the positive effect of GDP per capita and negative effect of unemployment on net international migration. He also differentiated the two types of economic factors: sensitive and insensitive to immigration policy, the respective examples being unemployment and GDP per capita. On the other hand, as it has been noted by Kaczmarczyk (2004) on the basis of the review of available literature, in many cases both relationships can be seen as relatively weak in scope.

This can lead to a conclusion that formal inference and forecasting of migration on the basis of economic explanatory models should be done very carefully, taking the above into account.

The GDP per capita is usually perceived as a very good measure of the level of the socio-economic development of particular countries and the macro-economic proxy for the level of individual income. However, in order to take into account the differences in price levels, which is very important from the point of view of the migrants' utility, the GDP should be calculated on the basis of the purchase parity power (PPP) rather than of the fixed exchange rates. There is also a clear agreement among the researchers on the direction of the impact of GDP on migration: high level of economic development constitutes a strong pull factor of migration (cf. Jennissen 2004).

Analysis of the impact of GDP growth in turn does not allow for an equally unambiguous conclusion. In the contemporary world with a global economy, periods of prosperity and recession in different countries are very often interdependent and develop in parallel. Therefore, the economic difficulties on the global scale may on one hand pose an additional push factor to emigrate in the sending countries, but on the other – reduce the incentives pulling migrants to the destination countries, through smaller demand for labour force, as well as through policy restrictions. Apart from this, globalisation processes may interfere with international migration in many different ways (Koryś, Okólski 2004), what can additionally obscure the picture of impact of global economic growth or recession on migratory flows.

Another very important economic factor of migration is the unemployment level. Its impact on migration is twofold: high unemployment in a given country constitutes a strong push factor to emigrate and hardly any incentive to immigrate for the foreign labour force. In terms of net migration, both these components act in the same direction.

In the formerly socialist countries of Central and Eastern Europe, two other factors related to the structure of the labour markets seem to have impact on migratory flows: employment in agriculture and in the privatised heavy industry. As both these sectors are in most cases technologically backward and inefficient and their employment rates are very high as for the European standards, their inevitable restructuring is expected to generate a flow of migrants, both internal and international, in search for the new employment possibilities. These push factors are likely to be complementary with the pull ones in Western Europe, facing the opposite structural problems on the labour markets, namely the unmet demand for the low-skilled and semi-skilled workers in construction and agriculture.

Summing up, the most important economic push and pull factors of migration from the less developed to more developed countries are low wages, unemployment, and relative poverty in the countries of origin, combined with the job opportunities and higher earnings at destination. With regard to the post-socialist countries of Central and Eastern Europe, the push factors appear to be contemporarily more important than the pull ones (Orłowski 2000).

In Western Europe the opposite seems to true, especially with regard to the labour migration, due to very high levels of socio-economic development.

In order to provide the economic background for the European countries under study, three variables are presented in Table 1: the PPP-adjusted GDP per capita for 2001, in constant US Dollars, unemployment rates for 2002 and the shares of employed in agriculture for 1998. The variables are presented for different years in order to ensure the cross-sectional data completeness and comparability between the countries.

Table 1. Recent economic characteristics of the countries under study

Country	GDP per capita (PPP) in 2001 (2001 USD) †*	Unemployment rate in 2002 (percent) ♦	Employment in agriculture in 1998 (percent) †
Luxembourg	53 780	2.8	2.1
Ireland	32 410	4.4	9.1
Norway	29 620	3.9	4.7
Denmark	29 000	4.5	3.6
Switzerland	28 100	3.1	4.6
Netherlands	27 190	2.7	3.2
Austria	26 730	4.3	6.5
Belgium	25 520	7.3	2.2
Germany	25 350	8.6	2.8
Italy	24 670	9.0	6.6
Finland	24 430	9.1	6.5
Sweden	24 180	4.9	2.6
United Kingdom	24 160	5.1	1.7
France	23 990	8.8	1.4
Spain	20 150	11.3	8.0
Portugal	18 150	5.1	13.5
Greece	17 440	10.0	17.8
Slovenia	17 130	11.3	12.0
Czech Republic	14 720	9.8	5.3
Hungary	12 340	8.0	7.7
Slovak Republic	***11 960***	***17.4***	***8.3***
Estonia	***10 170***	***6.8***	***9.1***
Poland	***9 450***	***18.1***	***19.2***
Lithuania	***8 470***	***10.9***	***21.0***
Latvia	***7 730***	***8.5***	***18.8***
Bulgaria	***6 890***	***16.3***	***26.2***
Romania	***5 830***	***8.1***	***40.0***
Average 27 countries	**21 165**	**8.7**	**7.7**

Data in ***bold italics*** refer to the countries with negative net migration in 2002 or latest available year (Council of Europe 2003). Grey background denotes respectively: GDP values lower than 15,000 USD (ca. 70% of the average), unemployment and employment in agriculture rates higher than 10% - the potentially important push factors of international migration.
*Sources: † World Bank (2003); ♦ United Nations (2003: Tables A10 and B7); * own computations.*

From the overview in Table 1 it can be seen that in terms of GDP per capita, the post-socialist countries, with the exception of Slovenia, are visibly outstanding from the other members of the EU and EFTA. Labour market problems (unemployment and structural incompatibilities) are also visible in the case of most post-socialist countries, with the exceptions of the Czech

Republic, Hungary and Estonia. The most serious disturbances on the labour markets are observed in Bulgaria, Romania, Poland, Slovak Republic and Lithuania. It is also worth noting that also some countries of Southern Europe have problems either with high unemployment (Spain, Slovenia, Greece), or with high employment in agriculture (Greece, Portugal, Slovenia), yet to lesser extent than the post-socialist countries of Central and Eastern Europe. Not surprisingly, most of the labour-exporting emigration countries are those with the lowest income per capita and highest labour market incompatibilities (Table 1).

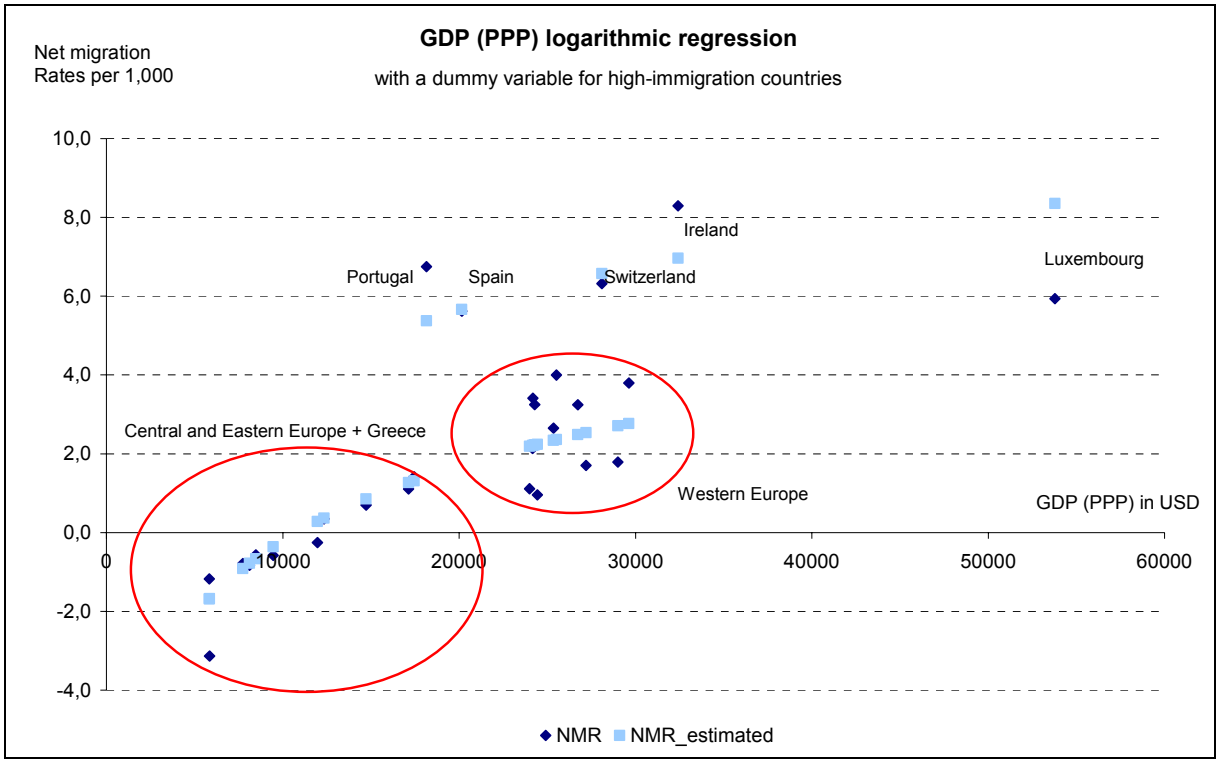
In order to verify the impact of the mentioned economic variables on international migration, several simple econometric models have been tested, explaining net migration rates pre 1,000 population by variables presented in Table 1, as well as by an additional social variable, the percentage of foreign nationals present in a given country (source: Eurostat, NewCronos). All the models were cross-sectional, using the data on net migration for 2002 or latest available year for Italy (2001), Bulgaria (2000) and Estonia (1999). In all cases, the migration data came from the Council of Europe (2003) yearbook.

Among the univariate models, the best fit (R^2 = 0.61) has been obtained for the natural logarithm of PPP-adjusted GDP, lagged by 1 year (further referred to as $\ln(\mathrm{L}(GDP_{PPP}))$, where L denotes the lag operator). Unemployment alone, even taken with logarithm, did not explain enough of the variance (R^2 = 0.39). Even less so did the share of employed in agriculture (R^2 = 0.18). Among the multivariate models, all other variables combined with $\ln(\mathrm{L}(GDP_{PPP}))$ proved to be insignificant, apart from the employment in agriculture. The best model fit, however, was obtained by including in the GDP model a dummy variable equal 1 for the countries with very high net migration, greater than 5.0 per 1,000 population. In this case, all the other economic and social explanatory variables proved insignificant. The model equation is as follows:

$$NMR = \underset{(0.370)}{2.742} \cdot \ln(\mathrm{L}(GDP_{PPP})) + \underset{(0.533)}{3.949} \cdot Z_1 - \underset{(3.594)}{25.459}\,.$$

The adjusted R^2 of this model equals 0.87, what seems to indicate that the level of economic development explains most of the variability of recent net migration levels in European countries, with the exception of the countries with the highest immigration levels. The graphic outcome of the model is presented in Figure 1.

Figure 1. Explaining recent net migration using GDP per capita (PPP), with a dummy



Source: Council of Europe (2003: Tables 8); World Bank (2003); own computations

On the basis of this model, two major clusters of countries can be easily identified:

- Central and Eastern Europe and Greece, with GDP (PPP) not exceeding 20,000 USD per capita and net migration rate lower than 2.0 per 1,000 inhabitants;
- Western Europe, with GDP (PPP) between 20,000 and 30,000 USD per capita and net migration ranging from 1.0 to 4.0 per 1,000 inhabitants;

There are also five outliers – countries of high immigration: Portugal, Spain, Switzerland, Ireland and Luxembourg, where net migration rates exceed 5.0 per 1,000 population. The necessity to add a dummy variable into a model, in order to take the specificity these countries into the account, reflects the inability to explain their migration patterns solely on the basis of the socio-economic variables proposed in this section.

3.3. Ethnic migration and migrant networks

Ethnicity as a factor shaping international migration in Europe used to be very important in the past. One factor contributing to the existence of ethnic minorities was the complex migration history of Europe in the past centuries. Most notably, this included the colonisation of some areas in Central and Eastern Europe by the ethnic Germans already in the middle ages, as well as the formation and dissolution of two multi-ethnic state organisms: firstly, the Ottoman empire, and then, the Austro-Hungarian monarchy (Jennissen 2004).

In the recent past, the border changes that took place after each of the two World Wars of the 20th century resulted in the creation of largely ethnically homogenous countries, especially in Central and Eastern Europe (Eberhardt 1999). As a result of all these changes, as well as due to forced resettlements, especially during and directly after the World War II, substantial ethnic diasporas remained outside their countries of ethnicity, forming a large migration potential for the later years. Additionally, the recent events in Central and Eastern Europe, including the break-up of Yugoslavia in 1991-92, of the Soviet Union in 1991, as well as the dissolution of the Czechoslovak Federation at the end of 1992, contributed to the fact that many people have suddenly found themselves in the foreign countries, forming the new ethnic minorities.

Among the most significant population flows having a primarily ethnic character are the repatriation of Germans (*Aussiedler*) from Central and Eastern Europe that has been taking place since the end of the World War II. According to the German Federal Ministry of Interior, between 1950 and 2002 there were 4.3 million repatriates, half of whom came from the former Soviet Union, one-third from Poland and about 10% from Romania (BMI 2004). Given the fact that the German minorities in the two latter countries are currently small (153 thousand persons in Poland and 60 thousand in Romania, according to the population censuses of 2002), as all those who wanted to migrate, already did so, no significant flows of *Aussiedler* are expected from these countries in the future. Some more potential of ethnic German migration remains in the countries of the Soviet Union, but given the recent significant decrease in the number of applications for repatriation (BMI 2004, Dietz 2000), partly due to the change of German immigration policy, this source of migration flows should also be considered as almost depleted. Apart from the Germans, recent ethnic emigration from the countries of the former Soviet Union comprised also population movements to Israel, Finland and Greece, yet to much smaller extent than the flows to Germany (Locher 2002, Jennissen 2004).

The other ethnic minorities that may in the future generate some migration flows affecting the countries under study are: Hungarians in Romania and in Serbia (Vojvodina), Russians in the Baltic Countries, Romanians in Moldova and Turks in Bulgaria (Eberhardt 1999). Another minority group are the Poles in the former USSR, forcibly deported after the Soviet invasion on Poland in 1939, their returns, however, are not very significant in the terms of numbers, despite some incentives from the Polish state. For the remaining ethnic minorities in Europe it can be envisaged that the ethnic factor will rather not influence international migration, due to the similar levels of development of the countries of residence and the ethnic homeland. The latter conclusion will be likely true for the Poles in Lithuania, Hungarians in the Slovak Republic, as well as for the minorities present in the Western European countries (e.g., Swedish-speaking citizens of Finland, German- or French-speaking citizens of Italy, Slovenes in Austria etc.).

Other ethnic migration flows from the countries of Central and Eastern Europe to Western Europe concern the Roma minority. There are approximately 7-9 million Roma in Europe, of which number 6 million people live in the Central and Eastern parts of the continent, from the

countries under study most notably in Romania, Bulgaria, Hungary, the Slovak and Czech Republics, as well as in Spain (ICMPD 2001). Especially in the 1990s a number of Roma emigrated or tried to emigrate to the countries of Western Europe, mainly to the United Kingdom, or to Canada. The reasons for migration were in some cases the open discrimination and violence, in some other – the economic deprivation in comparison to other ethnic groups in the home country. The future developments of the Roma migration are difficult to predict, as they depend on such uncertain factors as the improvement of the economic situation of the Roma, or the progress in dialog between the Roma and non-Roma communities in their countries of residence (cf. ICMPD 2001).

The diasporas of the Central and Eastern European nations present in the other developed countries may cause some return migration in the future, but judging by the magnitude of this phenomenon in the recent years, these flows will be rather limited in size. In general, it can be reasonably assumed that the ethnic factor of international migration in Europe is going to considerably lose in significance, as this tendency is already visible for example with respect to the German *Aussiedler*.

Another migration factor closely linked with ethnicity is the presence of migrant networks in the destination country. As it has been discussed in Section 2.3, the networks of family, friends, or simply other countrymen, provide useful information and in that way reduce costs, risks and uncertainty associated with migration.

A variable to measure the magnitude of the migrant networks are the shares of foreign populations in the total population of a country. Although the existing data collected by the national statistical authorities are far from being complete, mainly due to under-registration, the number of registered foreigners can be seen as a reasonable proxy. It is worth bearing in mind that the real numbers are in most cases higher, mainly due to the presence of irregular migrants. Table 2 shows reported foreign populations in the European countries under study.

From Table 2 it can be seen that in almost all European countries under study the foreigners comprise less than 10% of the population, with the exception of Luxembourg and Switzerland, as well as Estonia and Latvia. In two latter cases, however, the high shares are due to the presence of the large groups of non-citizen residents (mainly ethnic Russians), living in these republics since the period of the Soviet Union, but not able or willing to obtain the citizenship of these two Baltic States upon their acquiring independence. Apart from the mentioned countries, one of the highest percentages of foreign nationals is observed in Germany, which, given the size of the country, translates into the largest absolute number of foreigners, nearly 7.3 million in 2001 (Eurostat). The lowest percentages of foreign nationals are registered in the former socialist countries, especially in Bulgaria and Romania, but this likely predominantly reflects the poor quality of statistical registration in these countries.

Table 2. Shares of registers foreign nationals in the countries under study

Country	Year	Foreigners share of total population	Foreigners from outside the 27 countries under study share of total population	Foreigners from outside the 27 countries under study share of all foreigners
Luxembourg	2001	36.9%	4.6%	12.5%
Latvia [1]	2001	24.6%	24.4%	99.4%
Estonia [1]	2000	20.0%	19.7%	98.5%
Switzerland	2001	19.8%	8.3%	41.8%
Germany	2001	8.9%	5.9%	66.0%
Austria	2001	8.9%	6.5%	73.1%
Belgium	2001	8.4%	2.7%	32.4%
Greece	2001	6.9%	5.8%	84.2%
France	1999	5.6%	3.4%	60.7%
Sweden	2001	5.4%	2.6%	49.2%
Denmark	2001	4.8%	3.4%	69.6%
United Kingdom	2000	4.2%	2.6%	63.0%
Netherlands	2001	4.2%	2.8%	67.3%
Norway	2001	4.1%	2.2%	54.1%
Ireland [2]	2001	4.1%	1.4%	34.0%
Spain	2001	2.3%	1.3%	55.1%
Italy	2000	2.2%	1.7%	78.3%
Slovenia	2001	2.1%	2.0%	96.2%
Portugal	2001	2.0%	1.4%	71.2%
Slovak Republic [3]	2001	1.9%	:	:
Poland [3]	2002	1.8%	:	:
Finland	2001	1.8%	1.2%	65.7%
Czech Republic	2001	1.7%	1.1%	66.2%
Hungary	2001	1.1%	0.5%	43.0%
Lithuania	2001	1.0%	1.0%	94.9%
Bulgaria [4]	2001	0.2%	:	:
Romania [3]	2002	0.1%	:	:
Average 27 countries [5]	**-**	**4.7%**	**3.4%**	**63.5%**

Notes: Colon (:) denotes no data available.

[1] Foreigners include Estonian / Latvian resident non-citizens, mainly ethnic Russians (see also Section 4.3);

[2] For Ireland, category 'foreigners from outside the 27 countries under study' denotes citizens of non-European countries;

[3] Census data, foreigners include stateless persons and those with unknown citizenship;

[4] Census data, number of foreigners estimated on the basis of foreign registered immigration between 1992 and 2001;

[5] Estimated; averages for foreigners from outside the 27 countries exclude Bulgaria, Poland, Romania and the Slovak Republic.

Source: Eurostat, NewCronos; census data from the websites of the national statistical offices.

Although the shares of foreigners being citizens of the other European countries under study vary, in most cases they comprise less than a half of the overall number of foreign nationals, one-third on average. The highest shares are observed in Luxembourg and, to the lesser extent, in Belgium and Ireland. On the other hand, the lowest rates can be seen for the Baltic States and Slovenia. This is not surprising, as these countries experienced significant population exchange, with the ones that are not subject to the current analysis. In the former case, most of the foreign population come from the other republics of the ex-Soviet Union, in the latter one – from the post-Yugoslav countries, mainly Bosnia and Herzegovina, as well as Croatia, including the refugees from the wars of the 1990s.

4. Recent trends in international migration in Europe

4.1. Quality and comparability of European migration data

Data used in this study predominantly come from the Council of Europe yearbooks *Recent Demographic Developments in Europe* (1997-2003) and from the official Eurostat database – NewCronos, both sources reflecting migration registered by the national statistics. This section focuses on problems regarding the quality of international migration data in Europe, with special regard to the discrepancies between the numbers of migrants reported by sending and receiving countries.

Considering the quality and completeness of data on international migration, some problems are characteristic for all European countries, although to a different extent. As it has been noted by Bilsborrow et al. (1997), there may be various grounds for the inconsistencies of the international migration data, including different definitions of migrants in various countries, or the incomplete reporting due to reasons of legal, technical, organisational or other nature. Mainly because of these discrepancies, the validity and completeness of the data for many European countries is still far from being perfect (Eurostat 1997), despite the visible efforts of the national statistical authorities aiming to improve them.

For the purpose of a brief validation of quality and completeness of data on registered international migration reported by particular EUR-27 countries, two sides of the same picture have been examined, namely the figures provided by the origin and destination countries. Flows between the 27 countries were considered and the figures were assembled into the so-called double entry migration matrix. To provide a simple tool of data evaluation, the respective figures on the numbers of migrants reported for 2002 (or the nearest possible year) have been compared. Further, two simple relative data coverage measures have been calculated, i.e.:

- number of immigrants to a particular country as reported by this country (destination) divided by the respective number reported by as many EUR-27 origin countries as possible with regard to the data availability (quality of immigration coverage, hereafter 'QIC')
- number of emigrants from a particular country as reported by this country (origin) divided by the respective number reported by the possibly broadest group of EUR-27 destination countries; (quality of emigration coverage, hereafter 'QEC')

The complete available origin / destination data matrix for 2002, as well as the respective QIC and QEC measures are presented in Table 3.

Table 3. International migration in Europe (2002), registered by receiving and sending countries

Origin \ Destination		AT [1]	BE [2, 3]	BG [4]	CH [3]	CZ	DE	DK	EE [4]	ES	FI	FR [4]	GR [5]	HU [2]	IE [5]
AT [1]	Receiving	0	239	:	3 109	339	14 401	321	:	540	101	:	113	156	0
	Sending	0	330	513	2 894	1 598	14 162	250	12	814	225	968	522	2 871	130
BE [2, 3]	Receiving	267	0	:	996	80	4 439	609	:	3 141	151	:	91	47	0
	Sending	230	0	74	227	85	3 550	523	30	2 059	517	6 788	828	152	436
BG [4]	Receiving	931	313	:	468	729	13 230	145	:	16 078	46	:	1 176	62	0
	Sending	:	:	:	:	:	:	:	:	:	:	:	:	:	:
CH [3]	Receiving	1 538	246	:	0	109	8 533	480	:	3 716	139	:	95	75	0
	Sending	1 642	742	245	0	314	8 813	457	28	5 036	419	5 515	325	341	306
CZ	Receiving	1 628	150	:	498	0	11 150	202	:	442	47	:	91	52	0
	Sending	377	52	470	116	0	1 087	56	3	64	39	289	77	37	41
DE	Receiving	15 810	3 538	:	18 346	987	0	3 543	:	13 757	854	:	776	785	0
	Sending	15 929	4 565	8 682	14 660	9 691	0	2 974	614	16 681	2 658	19 815	19 998	16 411	2 634
DK	Receiving	208	475	:	460	51	2 889	0	:	723	360	:	102	22	0
	Sending	233	523	55	471	143	2 700	0	175	1 722	376	1 474	273	119	311
EE [4]	Receiving	14	15	:	46	9	991	234	:	98	1 378	:	2	7	0
	Sending	:	:	:	:	:	:	:	:	:	:	:	:	:	:
ES	Receiving	939	1 579	:	2 162	42	15 426	1 613	:	0	525	:	27	16	0
	Sending	134	968	121	2 363	50	3 310	122	8	0	178	3 316	65	48	1 132
FI	Receiving	216	539	:	450	34	2 203	396	:	875	0	:	117	132	0
	Sending	87	222	8	251	30	730	384	361	724	0	380	69	132	137
FR [4]	Receiving	862	9 446	:	8 180	340	18 619	1 439	:	8 200	281	:	428	188	0
	Sending	:	:	:	:	:	:	:	:	:	:	:	:	:	:
GR [4]	Receiving	488	621	:	375	61	15 913	264	:	195	70	:	0	66	0
	Sending	:	:	:	:	:	:	:	:	:	:	:	:	:	:
HU [2]	Receiving	3 398	377	:	714	59	17 211	147	:	326	100	:	101	0	0
	Sending	35	18	5	7	3	132	2	0	2	34	34	70	0	4
IE [5]	Receiving	137	395	:	326	45	2 230	373	:	1 186	153	:	20	22	0
	Sending	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IT [2]	Receiving	2 260	3 029	:	7 057	253	26 882	943	:	4 967	227	:	306	99	0
	Sending	724	1 822	156	7 416	24	11 413	174	0	1 084	168	3 394	344	166	157
LT	Receiving	105	59	:	105	20	4 135	835	:	2 003	66	:	54	13	0
	Sending	26	15	6	16	9	703	104	33	119	67	61	3	3	77
LU [3]	Receiving	111	220	:	159	5	1 739	156	:	96	49	:	3	1	0
	Sending	36	1 063	21	30	26	622	192	7	161	86	1 579	68	25	71
LV	Receiving	63	37	:	180	8	2 195	455	:	218	53	:	20	2	0
	Sending	19	3	3	7	11	210	52	120	6	60	105	1	2	7
NL	Receiving	702	8 362	:	1 425	224	13 976	886	:	3 273	228	:	189	88	0
	Sending	493	9 270	68	1 005	207	10 822	540	14	3 150	299	3 431	477	293	493
NO	Receiving	155	295	:	332	41	1 534	3 426	:	1 961	1 048	:	62	181	0
	Sending	64	157	32	144	33	679	3 309	59	1 099	1 056	420	50	24	55
PL	Receiving	3 679	1 321	:	824	1 679	100 968	962	:	3 869	95	:	205	75	0
	Sending	525	119	12	88	38	17 806	95	0	166	9	339	75	11	13
PT	Receiving	497	1 542	:	10 503	23	8 806	171	:	3 958	52	:	6	5	0
	Sending	0	0	0	2 240	0	776	0	0	404	0	1 838	0	0	0
RO	Receiving	2 455	757	:	724	350	24 560	290	:	48 671	33	:	643	8 894	0
	Sending	293	74	0	141	98	1 305	0	0	172	4	233	60	903	115
SE	Receiving	570	746	:	985	70	3 481	2 388	:	1 730	3 255	:	224	66	0
	Sending	286	379	22	503	68	1 659	2 241	83	1 284	3 211	891	484	140	217
SI	Receiving	679	54	:	95	21	2 379	37	:	57	2	:	3	15	0
	Sending	282	38	4	154	18	907	6	0	14	4	49	18	11	3
SK	Receiving	2 506	119	:	610	13 326	11 600	72	:	422	13	:	39	1 034	0
	Sending	212	13	6	59	449	219	3	0	20	0	20	7	24	2
UK [2, 8]	Receiving	1 410	3 757	:	3 827	489	14 703	3 645	:	27 249	870	:	583	149	13 500
	Sending	521	4 018	0	7 892	1 883	14 406	2 472	0	18 440	429	18 869	3 608	428	0
EUR-27 [9]	**Receiving**	**41 628**	**38 231**	**:**	**62 956**	**19 394**	**344 193**	**24 032**	**:**	**147 751**	**10 196**	**:**	**5 476**	**12 252**	**13 500**
	Sending	**22 148**	**24 391**	**10 503**	**40 684**	**14 778**	**96 011**	**13 956**	**1 547**	**53 221**	**9 839**	**69 808**	**27 422**	**22 141**	**6 341**
	QIC	**188%**	**157%**	**:**	**155%**	**131%**	**358%**	**172%**	**:**	**278%**	**104%**	**:**	**20%**	**55%**	**213%**

[1] 2001 data, [2] 2000 data, [3] Re-estimated on the basis of data by citizenship, [4] No recent data available (: in table), [5] 1998 data,

Source: Council of Europe (2003), Eurostat - NewCronos.

IT [2]	LT	LU [3]	LV	NL	NO	PL	PT [7]	RO	SE	SI	SK	UK [2, 8]	**EUR-27** [9]	**QEC**	Origin
857	10	41	2	565	84	156	37	81	318	90	64	3 573	**25 197**	**154%**	AT [1]
1 946	71	107	42	811	141	3 297	455	1 580	523	781	1 818	1 863	**38 724**		
1 577	7	1 413	3	5 357	198	61	179	17	387	13	6	5 044	**24 083**	**132%**	BE [2, 3]
3 030	37	281	30	5 119	373	649	1 740	318	867	21	71	3 839	**31 874**		
1 403	3	25	1	440	126	21	117	2	168	2	37	0	**35 523**	:	BG [4]
:	:	:	:	:	:	:	:	:	:	:	:	:	:		
5 687	7	35	4	802	150	41	118	11	412	73	28	3 234	**25 533**	**179%**	CH [3]
8 250	54	83	50	1 211	312	365	6 426	310	881	140	204	3 177	**45 646**		
422	13	19	8	393	79	34	8	3	151	5	749	1 248	**17 392**	**111%**	CZ
211	20	5	8	159	22	1 117	8	158	57	19	14 455	389	**19 336**		
10 054	150	705	76	7 959	1 572	2 335	692	224	2 699	332	86	18 809	**104 089**	**316%**	DE
36 535	2 290	1 327	1 378	9 336	1 753	78 739	11 315	17 834	3 876	2 502	9 820	16 662	**328 679**		
326	87	121	30	465	3 232	27	39	0	4 250	0	1	4 544	**18 412**	**131%**	DK
777	680	131	372	613	3 325	588	128	109	4 337	30	78	4 317	**24 060**		
51	41	11	56	48	174	0	5	0	345	0	0	0	**3 525**	:	EE [4]
:	:	:	:	:	:	:	:	:	:	:	:	:	:		
1 879	24	168	4	2 824	757	63	1 015	10	1 166	5	3	5 644	**35 891**	**59%**	ES
1 256	14	104	4	907	240	99	1 105	271	215	1	22	5 083	**21 136**		
305	87	73	23	408	1 249	4	24	0	3 532	0	0	0	**10 667**	**93%**	FI
183	28	76	24	270	1 186	37	28	24	3 591	2	3	980	**9 947**		
4 328	58	2 069	19	3 084	513	247	552	80	877	14	17	23 739	**83 580**	:	FR [4]
:	:	:	:	:	:	:	:	:	:	:	:	:	:		
737	1	52	1	1 077	89	60	11	29	595	2	4	5 526	**26 237**	:	GR [4]
:	:	:	:	:	:	:	:	:	:	:	:	:	:		
496	4	36	5	547	101	14	27	62	274	5	30	2 265	**26 299**	**5%**	HU [2]
24	1	0	2	26	42	137	3	570	24	2	115	44	**1 336**		
219	2	103	4	664	69	4	45	0	351	1	2	0	**6 351**	**93%**	IE [6]
0	0	0	0	0	0	0	0	0	0	0	0	5 900	**5 900**		
0	21	523	11	1 756	217	251	268	91	508	68	20	7 290	**57 047**	**59%**	IT [2]
0	1	278	3	523	137	526	243	731	250	167	10	3 919	**33 830**		
105	0	11	162	156	289	40	3	0	261	0	1	73	**8 496**	**22%**	LT
41	0	0	132	40	30	97	19	0	93	0	0	198	**1 892**		
220	1	0	0	172	14	2	16	2	93	0	2	0	**3 061**	**245%**	LU [3]
554	3	0	2	255	24	46	2 079	35	155	8	7	357	**7 512**		
76	182	5	0	92	170	5	5	0	189	0	2	0	**3 957**	**25%**	LV
11	176	0	0	14	38	28	2	2	60	0	1	62	**1 000**		
762	17	204	9	0	482	83	332	11	780	10	7	6 483	**38 533**	**106%**	NL
1 202	39	169	11	0	511	492	710	131	659	26	100	6 051	**40 663**		
197	25	10	8	426	0	31	72	0	6 374	0	6	2 389	**18 573**	**85%**	NO
162	52	13	56	337	0	87	70	62	6 357	3	28	1 300	**15 708**		
5 086	110	106	23	2 275	702	0	32	3	1 186	3	29	877	**124 109**	**16%**	PL
302	4	23	7	290	47	0	6	2	174	0	11	254	**20 416**		
412	0	3 021	3	1 653	98	4	0	2	178	2	0	2 385	**33 321**	**21%**	PT
0	0	494	0	200	0	0	0	0	0	0	0	881	**6 833**		
19 710	1	41	6	627	210	3	98	0	366	0	56	0	**108 495**	**5%**	RO
1 317	0	9	0	67	12	2	6	0	42	0	122	45	**5 020**		
435	49	111	26	680	4 552	70	48	7	0	15	9	2 181	**21 698**	**96%**	SE
477	23	104	46	551	4 404	190	100	67	0	24	21	3 451	**20 926**		
301	0	12	2	66	3	0	8	0	14	0	2	0	**3 750**	**49%**	SI
145	1	5	0	45	1	10	6	0	44	0	4	51	**1 820**		
370	1	15	3	256	120	10	1	4	76	1	0	771	**31 369**	**4%**	SK
36	0	1	0	19	3	11	0	1	10	1	0	55	**1 171**		
3 844	63	384	20	6 810	1 628	208	939	13	3 120	22	16	0	**87 249**	**114%**	UK [2, 8]
5 810	0	1 305	0	8 011	2 101	0	3 797	0	1 650	883	2 968	0	**99 491**		
59 859	**964**	**9 314**	**509**	**39 602**	**16 878**	**3 774**	**4 691**	**652**	**28 670**	**663**	**1 177**	**96 075**	**982 437**	**80%**	**EUR-27** [9]
62 269	**3 494**	**4 515**	**2 167**	**28 804**	**14 702**	**86 517**	**28 246**	**22 205**	**23 865**	**4 610**	**29 858**	**58 878**	**782 920**		
96%	**28%**	**206%**	**23%**	**137%**	**115%**	**4%**	**17%**	**3%**	**120%**	**14%**	**4%**	**163%**	**125%**		

[6] Migrants to / from the UK only, [7] Excluding 2 683 ‘migrants’ from Portugal, [8] No data on migrants to / from Ireland, [9] Estimate.

These simple quality measures (QIC and QEC) can be seen as *relative* data validity indicators, i.e. showing, what is the coverage of data on immigration or emigration reported by a particular country, as compared to the respective data reported by the countries of origin or destination of the migrants. Generally, the higher are the ratios, the higher is the coverage in the country in question in comparison to its migration partner countries. These measures however take into account not only differing values reported by sending and receiving countries on the same flow, but also lack of data or lack of reporting by the statistical office(s), in which case a value of 0 is arbitrary assumed. The justification for such approach is that these quality measures clearly show the magnitude of uncertainty the researchers are faced with. From the point of view of the theory of constructing of demographic measures they could be easily criticised for not eliminating these pairs of entries in which one of flows is not reported or missing. Despite these obvious shortcomings, the QIC and QEC measures may be useful as rough aggregate indicators of coverage and completeness of migration data.

In most cases, there is a positive correlation between the coverage of the data on immigration and emigration. Taking information on both types of flows both into consideration, where it is available, three major groups of countries can be distinguished according to the values of the QIC and QEC measures:

- One country with very wide coverage of data on European migration flows: Germany.
- Countries with relatively good or at least satisfactory coverage of data: all countries of Western Europe (apart from France and Greece with no or partial data), as well as the Czech Republic. In this group, two countries of Southern Europe (Italy and Spain) are characterised by visibly underreported emigration flows.
- Countries with relatively poor data coverage: Central Europe (apart from Bulgaria and Estonia with no data, as well as the Czech Republic, with relatively good coverage), together with Portugal. The worst situation is observed in Romania, Poland, the Slovak Republic and Hungary, the latter only with respect to emigration.

Moreover, in the recent years Bulgaria, Estonia and France reported to the international institutions dealing with the population data neither about immigration, nor emigration. For Greece there are some scarce data about immigration for 1998 only, placing this country in the group characterised by a poor data coverage. In general, the official migration figures for the countries of Central and Eastern Europe are clearly underestimated when compared with the data of their Western European migration partners. The same applies to some of the Southern European 'new countries of immigration', like Portugal and Greece, or, to a lesser extent and only in the case of emigration – to Spain.

The differences between European countries in definitions of migrants, as registered by the official statistics, are numerous. According to the international recommendations, a long-term migrant is defined as "a person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination

effectively becomes his or her new country of usual residence" (United Nations 1998: 18). Nevertheless, in some countries, notably in the case of the Czech and Slovak Republics, Poland and Romania the definition refers to 'permanent migrants', which is a notion difficult to define and almost impossible to operationalise. On the other extreme, Germany – the most important migration country in Europe, applies one of the broadest possible definitions of long-term migrants, what results in serious discrepancies between the data reported by sending and receiving countries (Kędelski 1990).

The magnitude of differences between the number of migrants according to the above definition recommended by the United Nations (1998) and, for example, the one according to the 'permanent migration' definitions can be assessed on the basis of the population censuses. The difference between different enumerated populations, that can be attributed to migration according to the particular definitions, may be very substantial. For example, the 2002 census in Romania showed the difference of about 154,000 persons, while in the same year in Poland the respective number totalled about 610,000 persons. In the case of Poland, the similar magnitude of this difference was estimated for the previous census of 1988, equalling about 590,000 thousand persons. This numbers show that the census based stocks of population are not accounted for by the registration. As the registers of deaths and births are rather exact, the error may occur due to errors in migration registration, be it internal migration, when a migrant deregistered in source and have never registered at destination, or be it international migration, when the migrant failed to deregister. The former category of migrants is most likely not very numerous – those who do not care about formalities would most likely do not deregister at all. We may therefore suspect that this is the international migration which is not accounted for in the case of Poland. This reasoning applies also, in more or less modified version, to other post socialist countries with similar registration systems.

Apart from the differences in the length of stay of the long-term migrants, there are also other discrepancies in definitions. For example, in the case of Romania, the reported immigration figures consider only non-Romanian citizens. A thorough inquiry of the issue of data compatibility remains beyond the scope of this paper, however it is worth bearing in mind that the mentioned problems constitute a serious limitation of all analyses of international migration. They have to be considered when interpreting the results of the current analysis.

Concluding, there are many discrepancies in the levels of migration data quality among the European countries. The worst situation is observed for the Central European countries (with no data reported for Bulgaria and Estonia), as well as for three countries of South-Western Europe: France (no data), Greece (no data on emigration) and Portugal. Most of the remaining countries of Western Europe are characterised by at least satisfactory coverage of data.

4.2. International migration in Europe between 1945 and 1989: an outline

Since the end of the World War II, the political division of Europe into the capitalist and socialist parts, was reflected in entirely different paths of international migration in Western Europe and Central-Eastern Europe. After the massive post-war migration, caused by forcible resettlement of millions of people in the central part of the continent, especially Germans and Poles, both parts of Europe started to live their own lives. In the West, rapid economic growth and the demand for foreign workforce led to the massive labour-related immigration, which continued even after tightening the policies that followed the oil crisis of 1973. At the same time, Central and Eastern Europe was facing the strong state control over all areas of life, to which international migration was no exception, especially being a very political issue (Stola 2003). In this subsection, a brief overview of migration developments in the period 1945-1989 is offered, with a special focus on Central and Eastern Europe, the migration history of which is described in more details.

In the West, after the first post-war migration turmoil, two major factors began to shape the migration streams: decolonisation and the steady economic growth, lasting for almost three decades (Fassmann, Münz 1992). The most notable example of former colonial empires that accepted significant population inflows from the former colonies were (de Jong, Visser 1997):

- France (including the resettlement of over a million French residents from Algeria after the 1954-1962 war for independence),
- the Netherlands (mainly considering migration from Indonesia in the 1950s, as well as from Surinam and the Antilles in the 1970s),
- the United Kingdom (migrants from India, Pakistan and Bangladesh in the 1960s).

The subsequent decades of the post-war periods can be summarised as follows: at first, the grounds for the future economic boom have been made in the late 1940s and early 1950s, by the means of the Marshall Plan and the related the recovery from the war damages. Subsequently, over two decades of unprecedented, continuous economic growth resulted in the increasing inflow of foreign labour force, once the local one proved to be insufficient to meet the increasing market demand. In that period, labour migration from Southern Europe (at first mainly from Italy, Portugal, Spain and Yugoslavia, and later from Algeria, Morocco, Tunisia and Turkey) to the booming economies in the western part of the continent was an important component of the overall population flows (de Jong, Visser 1997).

Economic migration to Western Europe slowed down, although did not stop completely after the oil crisis of 1973 and during the economic recession that followed it. An important part of immigration to Europe in the 1970s comprised of reunification of the families of the earlier labour migrants. On the top of that, the end of military dictatorship in Greece, the Carnation Revolution in Portugal (both in 1974) and the fall of the Franco's regime in Spain (1975)

contributed to the mass returns of the former political emigrants to these countries. During the whole decade of the 1980s, Western Europe experienced, apart from the continuing labour migration and family unification, a significant inflow of political asylum-seekers from the other side of the Iron Curtain, most notably from Poland (Jennissen 2004).

Throughout the post-war period, the main Western European receiving countries of international migration were Germany, France and Great Britain, although all characterised by different geographical patterns of population flows, as noted above. These differences can be explained by historical, linguistic, cultural, and economic factors, as well as the migration policy developments, including foreign labour recruitment (Fassmann, Münz 1992).

Migration in the socialist countries of Central and Eastern Europe has been characterised by three important common features: the East-to-West direction of the majority of long-term population movements, only a few returns and very little migration among these countries, apart from the republics of the Soviet Union. With respect to the latter characteristic, the exceptional cases of movements between the socialist countries concerned temporary workers hired on the basis of intergovernmental agreements (Grzeszczak 1991). Needless to say, the regimes exercised very strict control over all population movements, not only immigration, but also, probably more importantly, over emigration. Among all the socialist countries, only the citizens of the Tito's Yugoslavia enjoyed a relative freedom of movement and could travel freely, primarily to Western Europe, in quest for better employment opportunities.

A very important component of population flows in the second half of the 20th century was the ethnic migration. Shortly after the end of World War II, about 4 million ethnic Germans have been re-settled to Germany from Poland (Latuch 1961), further 2.8 million from Czechoslovakia (Drbohlav 2004). On the other hand, population inflow to Poland between 1945 and 1950, according to the official data comprised of over 3.8 million people, mostly ethnic Poles resettled from the territory annexed by the Soviet Union after 1939 (Koryś 2004).

Migration of the ethnic Germans from Poland continued also following the establishment of diplomatic relations between Poland and the Federal Republic of Germany in 1972, until early 1990s. The overall number of *Aussiedler* over the last half century 1950-2002 totalled to over 1.4 million (BMI 2004). Also many Poles used the opportunity created by loopholes in the law to emigrate to Germany using the *Aussiedler* status, being in fact economic migrants (Iglicka 1997). Moreover, over 151,000 *Aussiedler* managed to migrate to Germany from Romania only in the 1980s, despite the state control and extremely high costs of emigration visas (Gallagher, Tucker 2000).

Also with regard to ethnic flows, a mass emigration of about 370 thousand Bulgarian Turks to Turkey was observed about 1989 (Vasileva 1992), following the forced bulgarisation policy applied by the communist regime (Gächter 2002). Nearly half of the total number of the emigrants returned shortly after the system change in 1990 (Vasileva 1992). Concerning other

ethnic issues, it is also worth noting that during communist period, three Baltic States (Estonia, Latvia and Lithuania) have been facing the strong population inflow from the other republics of the Soviet Union. This migration, although not international *sensu stricto*, consisted mainly of Russians (in particular, of the military personnel) and significantly changed the ethnic structures of the three Baltic republics (Kielyte 2002)

With regard to the main determinants of population movements, apart form the ethnic factors and economic difficulties, emigration from the Central and Eastern European countries was significantly shaped by the political crises. The most important disturbances that pushed many people out of their home countries on political grounds were:

- Soviet invasion on Hungary and the fall of the anti-communist uprising of 1956 (200,000 emigrants, Juhász 2003);
- Invasion of the armies of the Warsaw Pact on Czechoslovakia, following the fall of the Prague Spring and the Party leadership of A. Dubček in 1968 (104,000 emigrants, Kučera 1994, after Drbohlav 2004);
- Anti-Semitic events of 1968 in Poland, steered by the nationalist fraction within the Party leadership (13,000 emigrants, Stola 2000);
- Introduction of the martial law in Poland in 1981 (160,000 emigrants and persons who decided not to return to Poland from their visits to the West, Stola 2002).

Due to the mentioned factors, migration history of the socialist countries differed substantially from the migration history of Western Europe. In the former case, hardly any immigration was a reason for a permanent negative net migration, while in the latter case the situation was (or eventually became) opposite. As it is further corroborated in the next subsection, the diverse experience of these countries in the post-war period in many cases contributed to preserving the different migration patterns also after the fall of the Iron Curtain.

4.3. Migration patterns in Europe since 1990: an empirical study

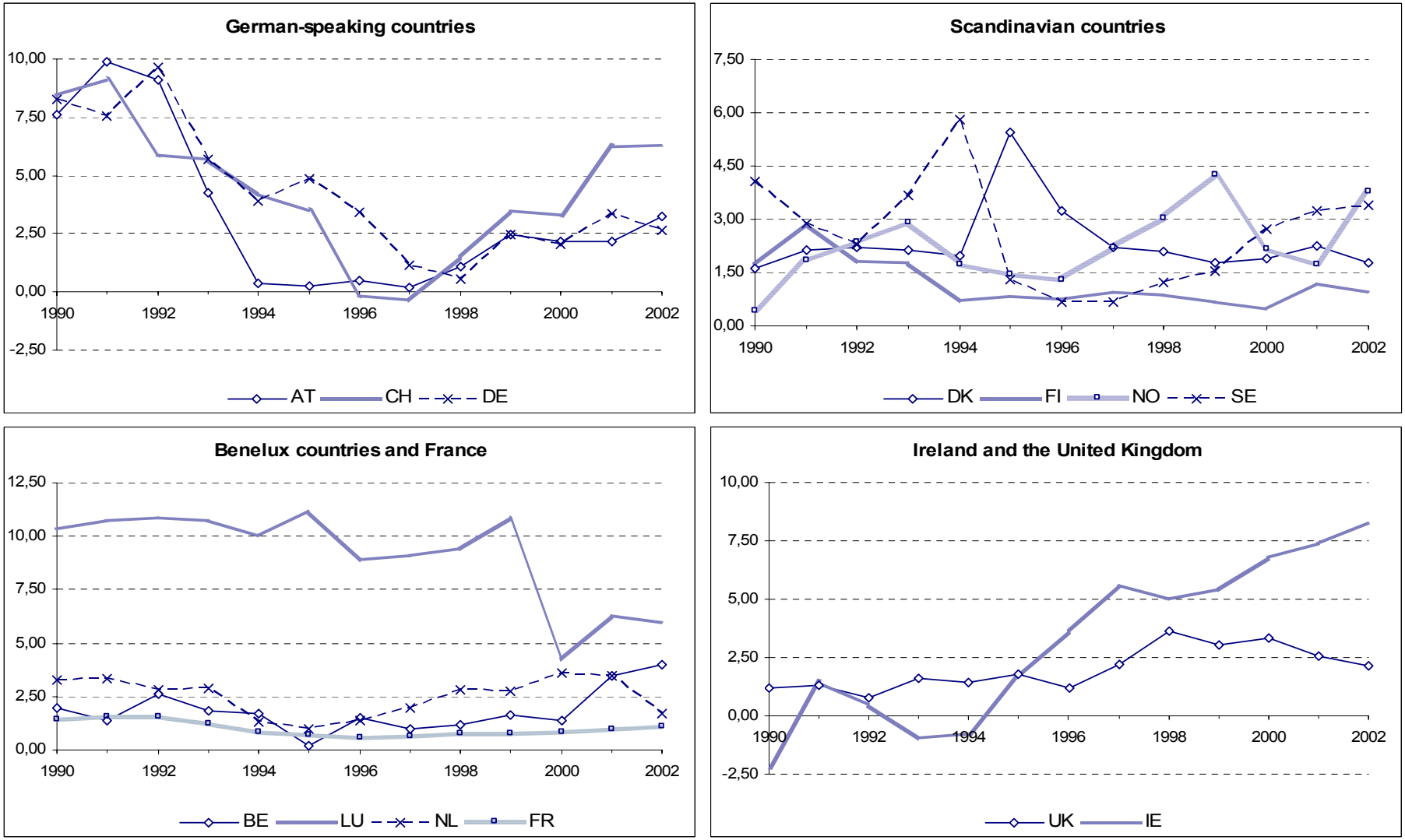
For the purpose of a brief overview of recent migration patterns in the European countries under study, time series of net migration (immigration less emigration) since 1990 have been analysed on the basis of the data from the Council of Europe (2003: Tables 8). Net migration has been calculated as the residual from the population balance equation, i.e. as difference in population stock between the end and the beginning of the year, less natural increase (births minus deaths). This solution enables to overpass some (although not all) problems related to the incomplete registration of immigrants and emigrants, yet the calculated numbers may additionally include the bias resulting from the imperfect statistical registration of the vital events. The use of this approach requires, however, that the population stocks are recalculated back on the basis of the population census results, thus approximately once in a decade. Otherwise, the other problems may appear that are reflected in the data series as the sudden

drops or increases of the overall trends, caused by the post-census "statistical adjustments" of the population figures.

In order to smoothen the data series for the countries with no post-census recalculations, which was the case of five countries of Central and Eastern Europe, the net migration figures have been adjusted on the basis of the census information. The size of the "statistical adjustment" of net migration, including unregistered migration from the period between the censuses, varied from about 24,000 in the Slovak Republic, 52,000 in the Czech Republic, through 214,000 in Bulgaria, 396,000 in Poland, to 558,000 in Romania. In this study, a simple methodology of adjusting the net migration figures has been applied. For Bulgaria, as well as the Czech and Slovak Republics, census adjustments were distributed uniformly in the past period and, apart from Bulgaria, this correction was extrapolated for the post-census years. For Poland and Romania a vast majority of the outflows was observed in the late 1980s and early 1990s, during and shortly after the system transformation. Therefore, the adjustment for these countries has been distributed proportionally to migration balance with West Germany over two longer periods: until and after 1992. Figure 2 presents the time series of net migration for the countries under study, grouped according to the common migration patterns, similar historical and cultural features, as well as the geographical location.

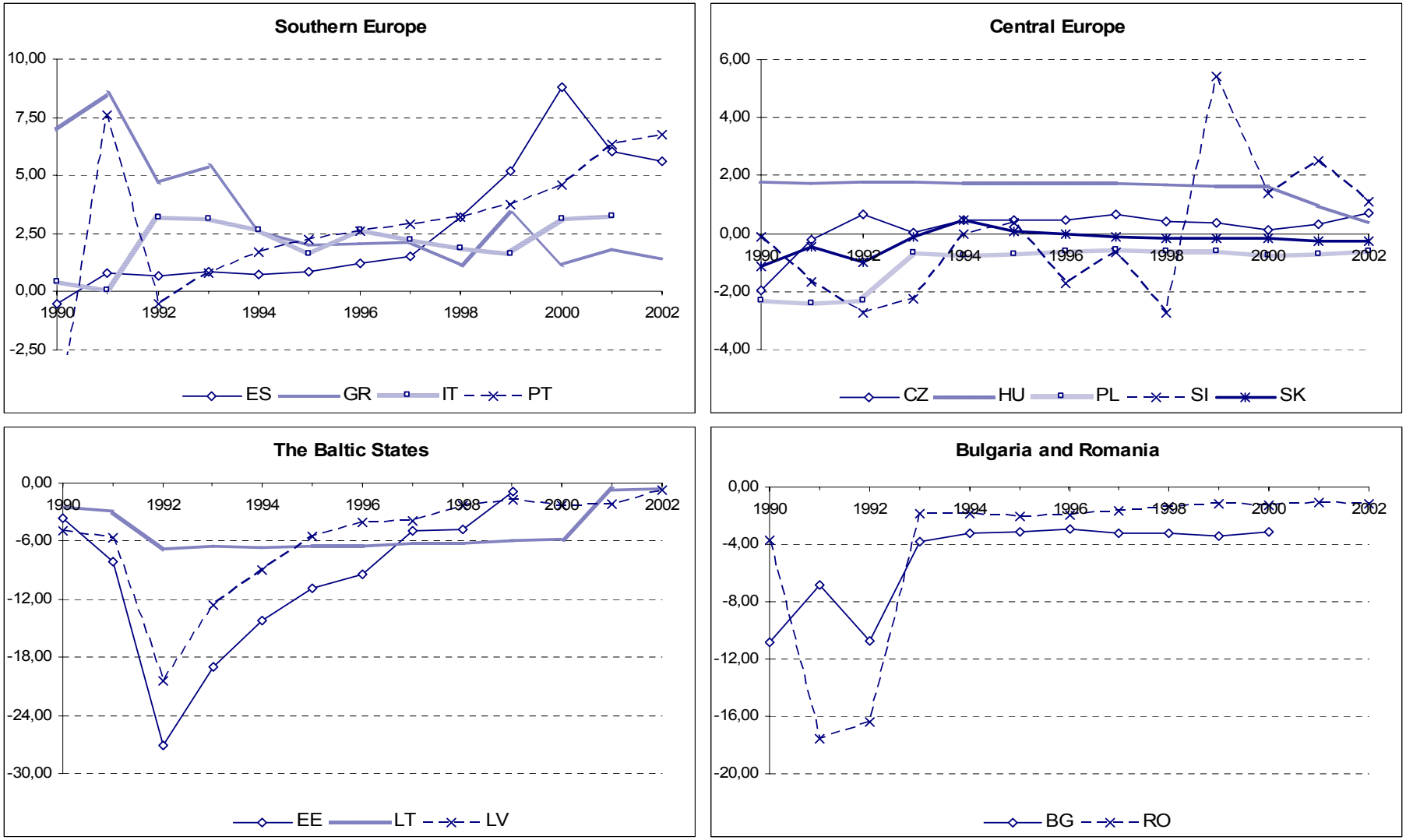
In Figure 2 it can be seen that in the 1990s, the countries of Western Europe experienced the continuation of the migration tendencies from the previous decade. Luxembourg remained recently a country with extremely high relative migration inflows, followed by Switzerland and only then by the remaining countries of North-Western Europe. Nevertheless, in absolute terms, population inflow to Germany was much higher than that to other countries. Especially in the first half of the 1990s, there was a substantial inflow of asylum-seekers, most notably as a consequence of the war in the former Yugoslavia. Additionally, the inflow of labour migrants from the formerly socialist countries continued (Jennissen 2004). In the second half of the decade, migration policies of Western European countries began to change, in order to limit the magnitude of the inflows. A clear example of the policy impact can be seen in the trend for the Netherlands, declining after the full implementation of the Alien Law (Vreemdelingenwet) from 2000.

Figure 2. Net migration in the European countries under study, 1990-2002, rates per 1,000 mid-year population



Source: Council of Europe (2003): Tables 8, own calculations

Figure 2. Net migration in the European countries under study, 1990-2002, rates per 1,000 mid-year population



Source: Council of Europe (2003): Tables 8, own calculations

Moreover, in the course of the 1990s, all the former emigration countries of Southern Europe (Greece, Italy, Portugal, Spain), as well as Ireland definitely became the countries with positive net migration levels (Figure 2). Especially in Ireland, but also in Portugal and Spain, the net migration rates are contemporarily very high, in the former case being likely a result of a very strong economic growth in the recent period. Portugal and Spain in turn began recently the preferred destinations and gateways to the other countries of the EU for migrants from the developing countries, in particular from the Latin America and the Maghreb (Council of Europe 2003) and for retirement migrants (Rodríguez et al. 2004). It is likely that to the former phenomenon occurs also in Italy and Greece, but it is not entirely reflected in the data due to the scope of the clandestine migration.

With regard to the countries of Central Europe, for the Czech and Slovak Republics, as well as for Hungary, the development of migration trends in the 1990s was to a certain extent stable, with the exception of fluctuations related to the division of Czechoslovakia at the end of 1992. In the Czech Republic and Hungary, the migration balance of the 1990s was positive, what was likely the outcome of successful economic transformation. In Poland in turn, the change of the economic system coincide at first with a mass population outflow in the early 1990s, followed by a stabilisation around the level of –0.6 per 1,000 inhabitants (Figure 2). Nevertheless, even such a traditional labour-exporting country like Poland is likely to become more and more attractive as migration destination, especially for people from the former USSR (Ukraine, Belarus, Armenia, Russia).

The irregularities observed for Slovenia have to be seen as the outcome of the armed conflicts that followed the break-up of Yugoslavia in 1991. The positive net migration that was observed in this republic in the Yugoslav times, reversed for a couple of years, likely due to the political instability of the whole region, as well as proximity of the war zone. Between 1991 and 1995, the other post-Yugoslav republics (Croatia, Bosnia and Herzegovina) were an important source of refugees. Also the very high net migration value observed for 1999 can be attributed to the inflow of refugees from Kosovo and to the regularisation of status of the other refugee groups (Zavratnik Zimic 2004). Contemporarily, as Slovenia is the wealthiest of the Central European new EU member states, it attracts many economic migrants, what can be also expected to continue in the future.

With regard to the Baltic States, two different migration paths could be observed in the 1990s, what is clearly reflected in the time series presented in Figure 2. In Latvia and Estonia, a mass emigration of the mainly Russian population was observed in 1992 and 1993, following the dissolution of the Soviet Union. This phenomenon was partially due to the fact that these people could not obtain the citizenship of the newly independent states. Lithuania in turn managed to solve the issue of citizenship prior to 1991 and granted it to all the permanent residents of the republic, who wanted it, avoiding at the same time a mass population outflow (Kielyte 2002). Recently, all three countries have similar, slightly negative levels of net

migration. With regard to the expected future developments, it is likely that the Baltic States will follow a similar path that has been previously sketched for Poland.

Adjusted time series of net migration for Bulgaria and Romania presented in Figure 2 reflect the mass population outflows in the beginning of the 1990s. Although the shapes of the trajectories are due to applying the presented methods of distributing the census adjustment, the mass population loss of these countries due to emigration in the early 1990s is a fact. Although in the recent years net migration is no doubt much less negative than it used to be, the relatively low level of socio-economic development of these countries will, no doubt, constitute a strong push factor to emigrate for many more years.

The overall migration trends for the countries of Central and Eastern Europe indicate that already in the 1990s the Czech Republic, Hungary and Slovenia started to observe positive levels of net migration. This process will certainly continue in the future, strengthened by the expected positive effects of the EU accession, and will encompass most of the other countries of the region. All the countries of Central Europe already are becoming more attractive both as migration destination, as well as the ways of transit to the West (Romaniszyn 1997). Only for Bulgaria and Romania it is not certain, whether the economic conditions will improve fast enough to prevent from the continuation of the substantial population outflows that have been observed in the recent decade.

4.4. Identification of major population flows concerning European countries

Apart from the typology of the countries according to the dynamics of their migration trends, the most important directions of migratory flows concerning the European countries can be identified on the basis of the available data. For the purpose of this brief overview, the information comes from the Council of Europe (2003) yearbook and from the NewCronos database of Eurostat. The data on population flows have been estimated as greater values from the ones reported by the receiving and sending countries for 2002 or the nearest possible year.

Not surprisingly, the most important destination country for intra-European migration is Germany, with over 344,000 immigrants from the countries under study in 2002, what constitutes about 40% of total immigration in that year. Nearly every third migrant from the countries under study originated from Poland (nearly 101,000), what represents the biggest single migration flow within Europe registered in 2002 in the official statistics. The mass inflow to Germany was countered by emigration of nearly 630,000 persons, of which over a half (around 335,000) resettled to the remaining 26 countries under study. The latter figure includes over 78,000 migrants from Germany to Poland, mostly being the return migrants. From this overview it is clear that Germany remains a key migration actor within Europe.

Taking all possible countries of immigration to Germany, in the terms of the number of the magnitude of population inflows, Poland is followed by the Russian Federation, Turkey and Kazakhstan, while among the European countries under study the main sources of migrants to Germany are Italy, Romania and France. Emigration from Germany in turn (again, mostly return migration) is primarily directed to Turkey, Serbia and Montenegro, as well as to Italy. Apart from the latter country, the most frequent European destinations of migrants in 2002 included also Greece and France. Such geographic pattern can be therefore primarily associated with labour migration to Germany and the returns of the earlier emigrants to their home countries. For the detailed figures depicting population flows between Germany and its European migration partner countries, see Table 3 in Section 4.1.

The second biggest actor in European migration in the recent period was the United Kingdom, with nearly 105,000 immigrants from the remaining countries under study (UK data for 2001, supplemented by the data of the partner countries for 2002). This number constituted over a quarter of the recent total immigration to the UK. The immigration volume was offset by over 126,000 emigrants from the UK to the other 26 European countries (more than 40% of the total). With regard to the directions of immigration into the UK, the biggest population inflows have been recently observed from Australia, France, Germany and the United States. Emigration from the UK in turn was primarily directed to the same countries, and additionally to Spain, recently becoming increasingly important as migration destination. Unlike in the case of Germany, a majority of the registered migration concerning the United Kingdom were population flows to and from the wealthy OECD countries.

Considering the magnitude of the recent population inflow, it appears that in the last few years Spain became the third most important migration country in Europe. However, out of the total of nearly 489,000 immigrants in 2002, only some 153,000 (32%) originated in the remaining 26 countries under study, while the other 68% came mainly from Latin American and North African countries. Globally, the most important source countries of migrants to Spain were Ecuador, Argentina and Romania. Apart from the latter country, the most frequent European origins of migrants in 2002 included also the United Kingdom, Bulgaria and Germany. In this case, a distinction between two types of European sending countries is clear. On one hand, there are the labour-sending worst-off accession countries (Bulgaria and Romania), on the other – the Western European countries that may be associated with the increasingly popular phenomenon of the 'retirement migration' of the wealthy elderly to the South (Rodríguez et al. 2004).

Among other important actors of intra-European migration, one has to point out other important sending and receiving countries, with numbers of respectively immigrants and emigrants exceeding 50,000 yearly in the most recent available year. Four such countries of origin, sorted by the total size of emigration are: Poland, Romania, France and Italy, while the four most important destinations are: Italy, Poland, France and Switzerland. It is clear that

there is a strong correlation between the size of a country and the position it plays in the European migration system, Switzerland being the only exception to this rule.

In addition to the overview of migration among the countries under study, presented above, as well as in Table 3 in Section 4.1, the biggest population flows concerning Europe, are summarised in Table 4. In this table, only the flows exceeding 25,000 persons a year in the period with the most recent available data are shown, yet considering also the important origin and destination countries other than the 27 ones under study.

Table 4. Biggest migration flows concerning the European countries around 2002

From	To	Migration size	Data for	Source *
Poland	**Germany**	**100 968**	**2002**	**R**
Ecuador	Spain	89 249	2002	R
Germany	**Poland**	**78 739**	**2002**	**S**
Russian Federation	Germany	77 403	2002	R
Turkey	Germany	58 648	2002	R
Australia	United Kingdom	51 860	2001	R
Argentina	Spain	50 220	2002	R
Romania	**Spain**	**48 671**	**2002**	**R**
Kazakhstan	Germany	45 865	2002	R
Morocco	Spain	40 520	2002	R
Germany	**Italy**	**36 535**	**2002**	**S**
Colombia	Spain	34 876	2002	R
Albania	Italy	32 181	2000	R
United States	Germany	27 956	2002	R
United Kingdom	**Spain**	**27 249**	**2002**	**R**
Germany	**United Kingdom**	**27 006**	**2001**	**R**
Italy	**Germany**	**26 882**	**2002**	**R**
Serbia and Montenegro	Germany	25 773	2002	R

* R - data according to the receiving country, S - to the sending country (greater of the two shown)
Migration flows between the 27 countries under study highlighted in **grey**.
Source: Eurostat, NewCronos

To sum up, it can be expected that the significance of the major migration countries in Europe will prevail in the coming years. In terms of directions of flows, labour migration from the Central and Eastern European countries to Western Europe are likely to continue, given the importance of the economic factors described in Section 3.2. Apart from this, new forms of migration can be expected to become increasingly in place, like for example the 'retirement migration' from Northern and Western Europe to the South. Moreover, an overall mobility increase among the European countries can be also reasonably assumed for the future.

5. Scenarios of intra-European migration after the EU enlargement

5.1. Freedom of movement in Europe: status quo and expectations[1]

The high profile of migration policy in the public debate in recent years in the old EU-15 countries has heavily influenced the negotiations on the EU enlargement. The fears arising from the growing migratory pressure from the South were further fuelled by sometimes contradictory and exacerbated forecasts about the possible flood of workers from the new member states. Such forecasts, offered both by researchers and journalists, were highly influential on the public opinion. The negotiations in the area of free flow of persons were delicate and sometimes tense (Duszczyk 2002), but eventually the respective negotiations chapters have been closed.

The definite conditions of accession of the ten new states to the EU were laid down in the Treaty on Accession and in the Act on Accession, signed on the 16th of April 2003 (European Communities 2003a, 2003b). Following the results of negotiations, the Treaty provided for the transitional periods in the area of the free flow of persons for the citizens of eight new Central European member states, excluding Malta and Cyprus. According to the Treaty, the old EU-15 countries were given the right to introduce the transitory provisions for two, five or maximally seven years in order to limit the access to their labour markets for workers originating from the new member states. The key element of the transitory provisions was the possibility to apply national measures and those resulting from the previous bilateral agreements in lieu of the Community law, which normally would have had to be applied.

The decision whether to introduce the transition periods was left to the respective member states. After the first two years following the accession, the EU Council is expected to make a review of the situation, but the decision whether to discard or to maintain the restrictions will be again left to the states. Finally, after the five-year period all the restrictions on the free flow of workers should be lifted, with the exception of the countries where there are serious disturbances on the labour market or a threat thereof. Such countries would be eligible to extend the application of the transitory measures for the subsequent two years.

According to the Accession Treaty, the new member states were given the possibility to introduce similar restriction against the 'old' EU nationals on the principle of the reciprocity. Nevertheless, only Poland, Hungary and Slovenia used this opportunity, while the Czech Republic, Estonia, Latvia, Lithuania and the Slovak Republic allowed for the asymmetry in their relations with the EU-15.

[1] Section based on the documents of the European Communities (2002, 2003a, b) and the European Commission (2004), as well as on the recent press releases regarding the post-enlargement policies on the freedom of movement of persons (Gazeta Wyborcza 2004, Polish Press Agency 2004, UKIE 2004).

The decisions whether to impose the transitional periods were announced by 1st of May 2004. According to them, only three countries: **Ireland**, **Sweden** and the **United Kingdom**, did not introduce any transitional measures, however imposed some obligations not stipulated in the community law, as the Workers Registration Scheme in the UK. The rest of the EU-15 decided to introduce a two-year transitional period in order to protect their labour markets and to calm down the public opinion. Taking into account the politicians' statements, as well as the economic and political situation of different countries, one may try to set up a scenario of the probable future dates of opening of these labour markets for the new members' nationals. It has to be noted that there is always some uncertainty about such predictions, originating from the changing political and economic milieu in which the political decisions are taken.

The next wave of liberalisation of the rules on the accession to labour markets is supposed to take place in two years' time, thus in 2006. In that year, **Denmark**, **Finland** and the **Benelux** countries are very likely to open their labour markets for the nationals of the new EU member states. For these countries, the introduction of the two-year transitional period was probably more an insurance against the unpredictable effects of enlargement than the real necessity for the labour market protection. Most of these governments (the Netherlands, Denmark and Finland) failed to keep their earlier promises to open the labour markets from the day of enlargement. One of the factors influencing their decision was the fear of being left as the only state with the open labour market and consequently to become an economic magnet attracting workers from the new member states. Anyway, the rather limited wave of post-accession migration to Ireland, Sweden and the United Kingdom, to some extent already confirmed by the preliminary statistics (Home Office 2004), will likely alleviate the public emotions and politicians' fears. Moreover, opening the labour markets in these countries already in 2006 would also be a remedy for serious shortages of labour in selected sectors (IT, health care, education, construction, agriculture).

Southern European EU members i.e. **Italy**, **France**, **Spain**, **Portugal** and **Greece** are less likely to open their labour markets in 2006 than the countries of Northern Europe. Judging by such economic factors as higher unemployment rates, as well as some politicians' official and unofficial statements and declarations, the date 2009 seems to be much more probable than 2006 when considering the opening of their labour markets for the workers coming from new EU member states. The popularity of the right-wing extremist anti-immigrant parties as Northern League in Italy and Front National in France proves to be an additional factor that is supposed to influence the states' decision in the subject matter.

Germany and **Austria**, according to statements of the politicians, are almost sure to extend the restrictions in access to their labour markets for the maximal period, i.e. for seven years. High unemployment rates (above 10% in Germany), the popularity of anti-immigrant and xenophobic slogans (Haider's party in Austria) and the direct neighbourhood of the new member countries surely contributed to German and Austrian position during the negotiations

on enlargement. Hence, both these countries proposed and supported the idea of transitional periods, with the aim of alleviating the public fears of the flood of workers from the East.

Although **Norway** is not a member of the European Union, yet it belongs to the European Economic Area (EEA), where the principle of the free flow of workers is equally secured. Therefore no barriers exist now for the EU workers to take up an employment in Norway and vice versa. With the enlargement of the EU, the necessary agreement on the enlargement of the EEA was signed. The EEA non-EU states (Norway, Island and Lichtenstein) were given the possibility to introduce restrictions on access to their labour markets, identical to those provided in the Accession Treaty. All of them, including Norway, introduced such restrictions initially for two years. The assumption that Norway will discard the restrictions already in 2006 can be founded on the good state of the Norwegian economy, low unemployment rates, and the fact that all other Scandinavian states are likely to lift the restrictions in this year.

Switzerland does not participate in the free movement of workers in Europe as it does not belong to the EU nor to the EEA. The Agreement between the EU and Switzerland on the free movement of persons from 1994 did not introduce the principle of the free flow of workers between the contracting parties. Instead, it introduced the system of annual quotas of Swiss residence permits for the EU workers until 2007 (European Communities 2002). No quotas were foreseen for the Swiss nationals in the EU. After 2007 Switzerland will still be protected by a special clause in case of excessive increase in immigration from EU countries until 2014. Finally, since 2014 the regulation of the free flow of persons between Switzerland and the EU is supposed to be entirely in place, under the condition of a positive outcome of the Swiss referendum in 2009. An Additional Protocol to the Agreement was initialled in July 2004 to regulate the free movement of persons between the Switzerland and the new member countries (DFA/DEA 2004). Since mid-2005, the new EU member states will be subject to the transition periods until the end of April 2011, including a quota system for residence permits. Since 2011, the new EU members are supposed to be treated by Switzerland in the same way as the old member states. The year 2014 is finally due to mark an unrestricted flow of labour force between the Switzerland and the extended EU.

Judging by the politicians' declarations, **Bulgaria** and **Romania** are going to join the EU in 2007, although the treaty on accession of these countries to the EU has not been signed nor accepted yet. Bulgaria has successfully finished its negotiations on the EU membership in June 2004 and the Romanian negotiations are still on going, yet both countries have provisionally closed the chapters on the free flow of persons. Both EU candidates accepted the transitional periods in the free flow of persons identical to those provided by the Accession Treaty for the eight Central and Eastern European states that joined the Union in 2004. The reasons for imposing such restrictions would probably comprise among others the economic disparities between Bulgaria and Romania and the EU countries, unsolved problems with the Roma and other ethnic minorities in these countries, an experience of Bulgarian and Romanian illegal immigration to the EU countries, as well as the developed

migratory networks of these countries' nationals in Western and Central Europe. Therefore the transitory measures are almost bound to be introduced in 2007 by all or most of the EU members. For the purpose of this study it will be therefore assumed that this process for Bulgaria and Romania will follow the schedule of opening Western European labour markets for the citizens of the new Central European EU members, yet with a three-year time delay.

We did not take into consideration any liberalization of migration regimes between **Turkey** and the European Union, as we see it unlikely in a foreseeable future, especially that many European politicians explicitly stated that Turkey will not benefit from the freedom of movement of labour after her admission to the European Union.

5.2. Qualitative migration scenarios

International migration flows can be described in terms of the push (unfavourable) and pull (attracting) factors. The current study focuses on the two types of such determinants: economic and related to migration policies. There are also other important factors (political disturbances, wars, etc.) that to a large extent shape the international population flows, as for example the fall of the socialist system or recent Yugoslav wars. Nevertheless, due to the unpredictability of such events, they have not been considered in setting the scenarios.

There have been numerous attempts to predict migration from Central and Eastern Europe to the EU-15 countries following the enlargement of the European Union, presented here as a background reference for the current scenarios of intra-European migration. These studies, published during the 1990s mainly by the Western European researchers focus on the East-to-West migration, not analysing population flows in the opposite direction. Unfortunately, many studies refer to the "migration potential" of Central and Eastern Europe, a term lacking precision and not really applicable as a predictor of actual migration streams (Kupiszewski 2002b). The existing studies cover the European origin and destination countries either in whole, or only partially, the latter focusing mainly on a group of the then candidate countries, or on Germany as the major destination country.

A recent comprehensive study by Alvarez-Plata et al. (2003) shows that in most of the previous studies the forecasted numbers of migrants to Western Europe were overestimated, including the study of Franzmeyer and Brücker (1997) on the high extreme, forecasting up to 1.18 million migrants yearly from Central and Eastern Europe to Western Europe. Moreover, the study of Alvarez-Plata et al. (2003) takes into consideration the policy issues in the form of different possible dates of opening of the labour markets of the EU-15 countries. Several possible years are assumed, from 2004 to 2011, according to the "2+3+2 years" scheme of transition periods. Although this proposition assumes the one-off opening of labour markets of the whole EU-15, the conclusion is that regardless of the date of full freedom of movement, the migration patterns are very similar, only observed with a time delay.

An overview of the selected studies assessing the size of post-enlargement migration flows is presented in Table 5.

Table 5. Selected studies assessing size of East-West migration after EU enlargement

Study	Countries of origin	Destination	Number of migrants
Layard et al. (1992)	10 CEE countries *	EU-15	Potential: 3,000,000
Franzmeyer, Brücker (1997)	10 CEE countries *	EU-15	Yearly: 590,000 - 1,180,000
Orłowski (2000)	10 CEE countries *	EU-15	Potential: 1,800,000 - 3,500,000
Hille, Straubhaar (2001)	10 CEE countries *	EU-15	Yearly: 188,000 - 396,000
Brücker, Boeri (2001)	10 CEE countries *	EU-15	Yearly: 335,000 down to 100,000 by 2030
Alvarez-Plata et al. (2003)	10 CEE countries *	EU-15	Yearly: 367,000 down to 0 by 2030
Fassmann, Hintermann (1997)	PL, CZ, HU, SK	EU-15	Potential: 721,000 - 4,000,000
Lundborg (1998)	PL, EE, LT, LV	EU-15	Potential: 1,900,000
Orłowski, Zienkowski (1999)	PL	EU-15	Potential: 390,000 - 1,500,000
Bauer, Zimmermann (1999)	PL, RO, BG, CZ, SK, SI	EU-15	Total in 15 years: 3,000,000
Salt et al. (1999)	PL, CZ, EE, HU, SI	EU-15	Potential: 500,000
Fertig (1999)	PL, CZ, EE, HU, SI	Germany	Potential: 400,000
Fertig, Schmidt (2000)	PL, CZ, EE, HU	Germany	Total in 20 years: 300,000 - 1,200,000
Sinn et al. (2001)	PL, RO, CZ, HU, SK	Germany	Yearly: 250-270,000 down to 60-150,000 by 2020

* BG, CZ, EE, HU, LT, LV, PL, RO, SI, SK.
Source: own elaboration on the basis of the study of Centraal Planbureau (2004) and the quoted sources.

Most of the mentioned forecasts are based on the econometric models with purely economic explanatory variables. As it has been noted by Kupiszewski (2002b), such an approach lacks certain features that would be desired from the methodological point of view. First of all, the demographic, social or policy constraints of migration are not considered in such models, what seems to be a serious material omission. Secondly, the economic variables used as predictors, like GDP or unemployment, are difficult to forecast themselves and thus increase the uncertainty of migration forecasts to a very significant degree. Therefore, the results of all mentioned studies will be used only as a background reference for the forecast outcome in the current study, applying the methodology of knowledge-based scenarios.

The principal difference between the assumptions made in the vast majority of existing forecasts and the ones presented in this section is, that the former were based on analyses of historical trends, developments in other countries or economic processes. We decided that more appropriate is to add to the traditional thinking on the future migration developments the migration policy dimension, therefore addressing part of the criticism of assumptions made in theoretical models used in migration forecasting (Willekens 1995; Kupiszewski 1996; Fertig, Schmidt 2000). In the current forecasts, three different scenarios of intra-European migration developments are considered: Base (the most likely), Low and High, two latter expressing

uncertainty in the form of expected range of possible deviations from the Base scenario. These scenarios differ primarily with respect to the assumptions on the expected economic performance of particular countries. The developments of intra-European migration policies are assumed the same for all scenarios, with gradual opening of Western European labour markets for the citizens of Central and South-Eastern European countries following the outline described in Section 2.

In general, the presence of an overall migration trend is assumed in all scenarios, with gradual implementation of the freedom of movement policy marking temporary deviations from the general trend. This allows for distinguishing three phases of migration developments:

- *Pre-opening period*, with migration following the overall trend starting from the initial values observed for 2002.
- *Post-opening period*, following the full implementation of the freedom of movement policy, with increased migratory movements from Central and Eastern to Western European countries, yet systematically declining over time.
- *Period of long-term stabilisation*, with migration flows returning to their overall trends, which continues until the end of the forecast horizon.

Especially in the first period following the full implementation of the freedom of movement policy, the scope and direction of migratory flows is going to depend heavily on the disparities between origin and destination countries. For the purpose of the current analysis, 27 countries under study have been clustered into three groups, according to their socio-economic situation: Western Europe, consisting of the EU-15 countries, Norway and Switzerland; Central Europe, composed of the 8 new member countries from 2004, as well as South-Eastern Europe (Bulgaria and Romania).

It is assumed that liberalisation of migration policies will have no impact on migration within Western Europe, as well as in the South-Eastern Cluster. In the former case the assumption is self-explanatory, while in the latter it is envisaged that the excess migration streams from Bulgaria and Romania will be directed predominantly to Western and to lesser extent to Central Europe. Disparities of income between the clusters are expected to be the only source of additional migration pressure in that case. Adversely, within Central Europe one can expect a slight increase of population movements, due to the opening of diversified labour market opportunities in various countries.

Naturally, the most important changes can be expected with respect to population flows from Central and South-Eastern to Western Europe, as well as to lesser extent from South-Eastern to Central Europe. Their magnitude would depend on income disparities between particular clusters, as well as on the scenario type (highest migration pressure in the Low variant, assuming prevailing income gap in Europe, and lowest in the High one). With respect to eastward migration it can be assumed that there will be an increase in population flows, but

the scope of this phenomenon will be rather limited in all forecast variants. It can be envisaged that the labour movements between the old and new EU member states can become increasingly two-way flows, as more demand for specific types of labour in the new EU member countries may be required, including the highly skilled professionals. Nevertheless, the primary source of eastward migration will likely be the returns of former emigrants.

The Base scenario therefore assumes a stable socio-economic situation in Europe, most importantly a sustainable economic growth and thus a long-term convergence of income levels in all European countries. In terms of a global trend that would mean an overall increase in mobility of the Europeans, following the increase of job opportunities in other countries. These possibilities are likely going to be of key importance for the East-West migration, where the gradual opening of Western European labour markets is expected to constitute a strong pull factor for the citizens of Central and Eastern Europe. The positive effects of the European integration are likely to occur in full in the longer term, which is going to be visible in return of the migration flows to their overall tendencies.

The Low scenario in turn envisages economic stagnation in Europe, with higher unemployment levels and related structural labour market problems. Especially in the pre-opening and post-opening periods some economic disturbances may be observed in the countries of Central and Eastern Europe, similar, but much less intense, to those witnessed in East Germany in the 1990s, after the German reunification. With hardly any factors increasing the overall spatial mobility due to a very slow income growth and scarce new job opportunities, the key factor shaping population movements in Europe is likely to be the pressure on migration from Central and Eastern Europe to the West after introducing the freedom of movement policy. In this variant the disparities between different parts of Europe are going to pertain due to unfavourable economic conditions, what would generate substantial migration streams in the middle term. Therefore, the post-opening wave of migration in the Low variant is assumed to be higher and to last longer than under the conditions assumed in the Base scenario.

In the High scenario, a good overall situation, substantial economic growth and fast convergence of the economies and thus of the living standards are assumed for all European countries. On one hand this would significantly increase the overall mobility of people within Europe in search for emerging employment possibilities. On the other hand it will reduce the push factors to emigrate from the less developed regions including Central and Eastern Europe. In this scenario, the post-opening increase of the East-West population flows is expected to be a short-term phenomenon, rather moderate in size.

The assumptions for the Low and High scenarios are meant to provide the expected lower and upper bounds of the possible migration developments, rather than the complete 50-years-long trajectories for the countries under study. It seems implausible to believe that the conditions for either high net migration losses or gains would be that long-lasting. A belief in the

existence of the long-term economic 'equilibrium' path of growth may contribute an additional argument in that respect.

Following the liberalisation of population movements within Europe, one may also expect the occurrence of a short-term phenomenon of 'migration without migration'. In the Western European countries, many of the so far irregular migrants and illegal workers from Central and Eastern Europe are likely to regularise their status once they would have such an opportunity. Therefore, shortly after the liberalisation takes place, an increase in the numbers of migrants will likely be observed in the statistical registration, yet not in the reality. This hypothesis has been substantiated by the recent Home Office (2004) report stating that in May 2004 as many as 61% of those who registered under the Working Registration Scheme arrived before 1st of May 2004. By September 2004, the share decreased to 12%. This is exactly as was predicted by Kupiszewski (2002a).

5.3. Quantification of the assumptions

With regard to intra-European migration scenarios for the period 2002-52, the forecasted variable is migration volume between the particular countries within Europe. Following the proposition of Kupiszewski (2002a: 106), initial migration figures for 2002 have been taken as greater from the values registered by the sending and receiving countries, thus the figures from Table 3 in Section 4.1. The underlying data came from the yearbook of the Council of Europe (2003: Tables 6) and from the Eurostat database (NewCronos). In the forecasting model *MULTIPOLES* applied in this study (Kupiszewski, Kupiszewska 1998), the crude numbers of migrants are transformed into total migration rates (*TMR*). The scenarios are made on the basis of the *TMR* multipliers (*m*), satisfying the condition $TMR_{t+1} = TMR_t \cdot m_{t+1}$.

The multipliers *m* are composed of two multiplicative components: the overall trend (*TR*) for a given scenario, constant for the whole forecast period, and the post-accession deviation. The latter component is assumed to occur at the moment of introducing a free-flow policy between particular countries, and gradually diminish within a given period of time. The post-accession deviation is calculated in such way that the difference between the current *TMR* and its trend follows a logistic curve, diminishing from the post-accession level to zero. In terms of multipliers *m*, the relevant formula for flows from country *i* to country *j* in the year *t* is:

$$m_{t,i,j} = TR \cdot \frac{PAI_{i,j} + (TR - PAI_{i,j}) / (1 + \exp(-r \cdot (t - (YF_{i,j} - 2002) - \tfrac{1}{2} YS)))}{PAI_{i,j} + (TR - PAI_{i,j}) / (1 + \exp(-r \cdot (t - (YF_{i,j} - 2002) - \tfrac{1}{2} YS - 1)))}$$

where *r* denotes a growth rate of the logistic curve, *t* – year, $PAI_{i,j}$ – assumed post-accession increase in migration rates, expressed as a multiplier; $YF_{i,j}$ – year of introducing the freedom of movement from country *i* to *j*, and *YS* – years needed to return to the trend. Specific assumptions have been made for:

- $m_{t,i,i} = 1$ for the default zero flows from country i to country i;
- $m_{t,i,j} = TR$ for both i, j denoting Western European countries;
- $m_{t,i,j} = TR$ for $t < YF_{i,j}$ and for $t \geq YF_{i,j} + YS$;
- $m_{t,i,j} = TR \cdot PAI_{i,j}$ for $t = YF_{i,j}$.

Assumptions for $PAI_{i,j}$ have been established for three clusters of European countries: Western, Central and South-Eastern.

In terms of numbers, the overall trend in the Low scenario is assumed to be constant throughout the forecast period (TR = 1), in the Base scenario to reflect the moderate mobility increase by 0.5% yearly (TR = 1.005) and in the High scenario – a significant increase by 1% per annum (TR = 1.01). In the case of westward movements from South-Eastern to Central and Western clusters, as well as from Central to Western cluster, the trends for High and Low variants have been swapped, to ensure consistency of the assumptions.

The time needed for the migration flows to stabilise and return to the trend after liberalisation of the population movements (YS) is assumed to equal 20, 15 and 10 years, respectively in the Low, Base and High scenarios. In all cases, growth rate for the logistic curve r is assumed to amount to 0.5. Hypotheses regarding the size of post-accession increase of migration from country i to j ($PAI_{i,j}$) are presented in Table 6.

Table 6. Initial post-accession increase ($PAI_{i,j}$) for clusters of countries

Low Scenario, From \ To	Western Europe	Central Europe	South-Eastern Europe
Western Europe	1.00	1.00	1.00
Central Europe	1.50	1.00	1.00
South-Eastern Europe	2.00	1.50	1.00

Base Scenario, From \ To	Western Europe	Central Europe	South-Eastern Europe
Western Europe	1.00	1.05	1.05
Central Europe	1.35	1.10	1.05
South-Eastern Europe	1.60	1.35	1.00

High Scenario, From \ To	Western Europe	Central Europe	South-Eastern Europe
Western Europe	1.00	1.10	1.10
Central Europe	1.20	1.20	1.10
South-Eastern Europe	1.20	1.20	1.00

Source: own elaboration

The results in terms of 'hypothetical' trajectories of migration rate developments, in relation to the values observed for the period prior to the introduction of freedom of movement policy,

are presented in Figure 3. It has to be noted that in reality, the schedules will be postponed, according to the policy-related assumptions presented in Section 2 influencing the delay in mutual opening of labour markets by particular countries (*YF*).

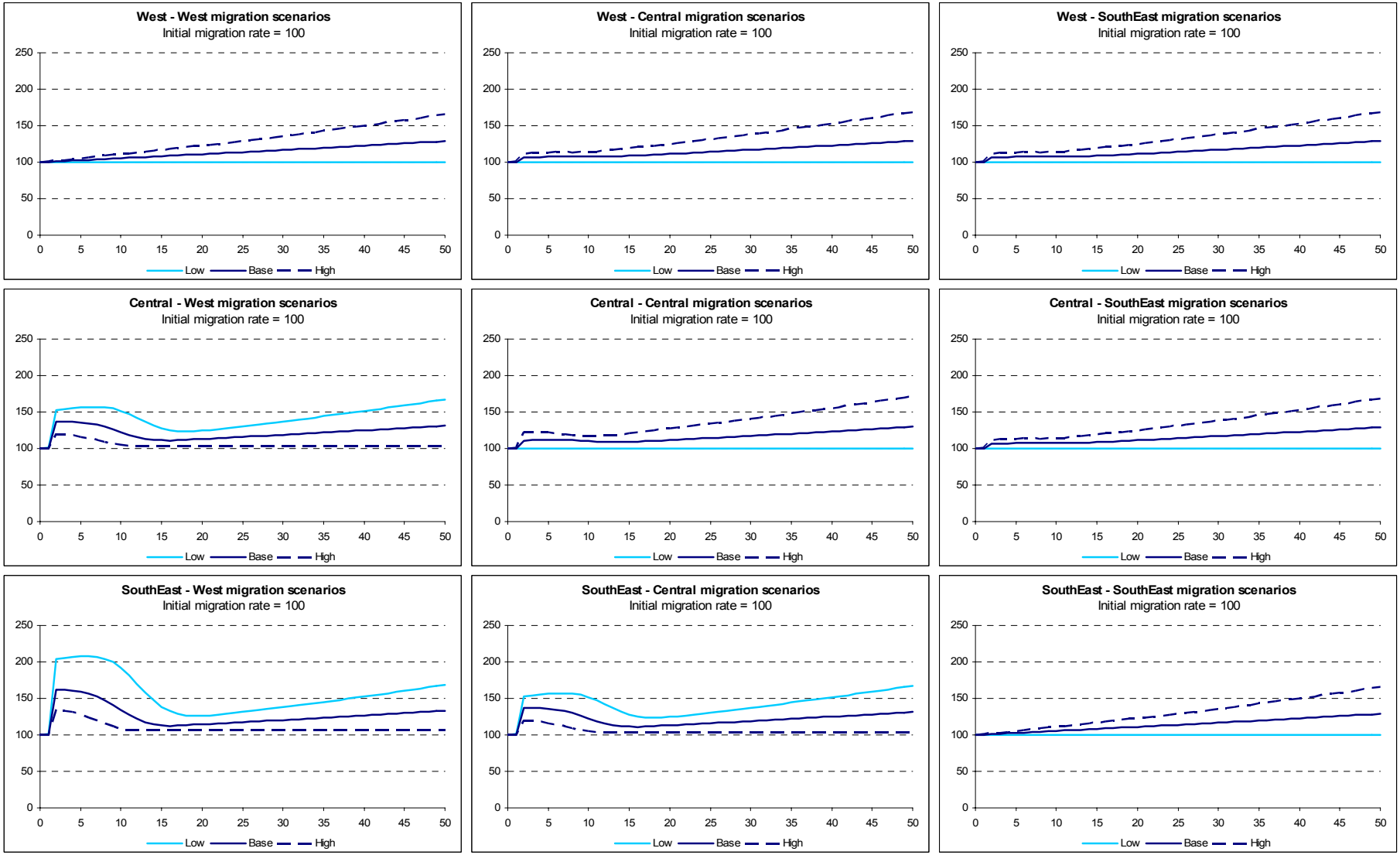
Separate assumptions have been made with respect to the sex and age distributions of migrants within Europe. The distribution by gender has been assumed to be the one observed in 2002, remaining constant throughout the forecast period. The age-specific migration rates have been calculated for the following four groups of countries:

- Germany, separated due to its key position in European migration system;
- Western Europe: Austria, Belgium, Denmark, Finland, Ireland, Luxembourg, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom;
- Southern Europe: France, Greece, Italy, Portugal and Spain;
- Central and Eastern Europe: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

In most cases, German data on migrants by citizenship have been used, as the best available proxy of the distributions by origin and destination. The only exception were flows from Western to Southern Europe, where the data of the destination countries have been applied, due to the local specificities in the age structures, namely the post-retirement migration.

The input data have been taken from the Eurostat database (NewCronos), except for France, where the figures have been estimated on the basis of the study of INED (1999). In all cases, age distributions of migrants have been assumed constant throughout the forecast horizon, i.e. until 2052.

Figure 3. Overview of assumed post-accession intra-European migration developments: Low, Base and High scenarios



Source: own elaboration

6. Scenarios of net migration from the remaining countries

6.1. Qualitative migration scenarios

In setting the scenarios of net international migration from the remaining countries of the world (hereafter: the "external" migration), the economic and political situation at the fringes of the enlarged European Union has to be considered in the first place. The other post-socialist countries, including the former Soviet Union, as well as the countries of the former Yugoslavia are potential sources of large population inflows. A very important way in which the situation in these countries can have an impact on migration to their European neighbours is through the presence of established migrant networks. Situation in the countries of the former Soviet Union will most likely have impact on migration flows to Poland, the Baltic States, the Czech Republic, as well as to the rest of the Central Europe. Countries of the former Yugoslavia may in turn generate substantial population movements to Slovenia and Hungary, following the strong historical and cultural ties in that region. These flows depend heavily on further political and economic development of the mentioned countries, and especially on their possibility of joining the EU, which factor, however, remains hardly predictable. One cannot also completely ignore the ethnic migration of Poles and Germans from the former USSR etc., although this migration source is already almost exhausted.

The second group of potentially significant sources of population inflows comprises of the countries of historically large migration into Western and Southern Europe, mainly Turkey and the Northern African countries. In general, it can be envisaged that these population inflows to Europe will continue, to some extent, regardless of the pace of the socio-economic development in the countries of origin. In general, existing disparities in income and living conditions between European countries and most of the outside world will no doubt constitute a strong push factor to migrate. This will influence the possible magnitude of migration into Europe, especially taking into the account the large countries like China, especially as there are already significant Chinese migrant networks in Europe.

On the other hand, policy measures are almost certainly going to be in place, aimed at limiting migration or shaping it in a desired way, like admitting highly-skilled professionals. Hence, although migration potential outside Europe is very large, its impact is likely to be offset by these policies. The policies are also likely to depend on the economic developments on the global scale: both in the highly developed, as well as in the developing countries. For the purpose of setting the scenarios of net migration from remaining countries of the World, again three variants of global socio-economic developments are assumed:

- Base scenario, considered to be the most likely one, with a moderate, yet sustained improvement of economic, political and social situation worldwide, resulting in moderate overall population inflow to Europe and a gradual shift in places of

origin from the neighbouring countries to the other developing regions of the world. In this scenario policy measures are not assumed to be very restrictive, due to relatively good and stable socio-economic situation in Europe.

- Low scenario, assuming economic stagnation both in Europe and in the rest of the world, resulting in strong migration pressure on the developed countries. The strong push factors are in this scenario offset with very restrictive migration policy, having an impact at the decline of at least registered migration. Migration policies are primarily aimed at the protection of European labour markets and reducing the possible social tensions related to the inflow of large numbers of immigrants.
- High scenario, assuming dynamic economic growth and social development, resulting in a need for inflow of foreign labour and thus leading to relatively liberal immigration policies. Economic growth in the developing regions is assumed to be a factor contributing to the increased mobility of people worldwide.

In terms of the general assumptions, comprehensive scenarios of the overall net migration for a majority of European countries have been presented by de Beer and van Wissen (1999). In their work the countries have been clustered into five groups: Eastern (Bulgaria, Romania and the former USSR without the Baltic States), Central (remaining post-socialist countries including the Baltic States, Croatia and Slovenia), Northern (Scandinavian countries), Southern (Greece, Italy, Portugal and Spain) and Western (remaining countries of Western Europe). Two scenarios of population developments have been presented: the one of 'uniformity', assuming convergence of trends of demographic patterns within Europe, based on favourable, strong economic conditions, and the one of 'diversity', preserving, under flagging economic development, the current differences between countries. In the 'uniformity' scenario it was assumed that by 2050, net migration rates in all European countries would reach the levels of +2.5 per 1,000 population, with the exception of Southern European countries, which will reach net gain of +3.5 per 1,000. In the 'diversity' scenario, the assumed target net migration rates were correlated with the level of socio-economic development in particular clusters, ranging from –0.5 per 1,000 in Eastern Europe, through –1.0 in Central Europe, +1.5 in Western and Northern Europe, to +3.5 in Southern Europe. Although these scenarios are not directly comparable with the current study, as they relate to the overall net migration of particular countries, they form a valid point of reference in the scenario setting.

The major shortcoming of the forecast of de Beer and van Wissen (1999) is that they do not take into the account the migration policy issues, and especially the EU enlargement. From the perspective of the year 2004, it should be noted that, as their forecast is based on the data until 1995, they do not take into the account the recent population developments, which seem to be crucial for understanding the dynamics of migration processes, not only in Central Europe, but also in countries like Ireland or Spain. What seems worthwhile in their study is the clustering of European countries according to the similar demographic patterns. In the

current work, an analogous grouping is therefore applied, with only three exceptions:

- The Czech Republic and Hungary have been assigned to the cluster West, not to the Central, due to their recent migration developments with positive net migration in the second half of the 1990s, as well as due to the high level of socio-economic development;
- Slovenia has been attached to the cluster South, not only due to the recent migration history and geographic location, but also due to very good economic performance, the best among the former European socialist countries.

Given the above, it is envisaged that in all European countries the net migration from the rest of the world will eventually be positive, regardless of the forecast variant. The lowest external net migration rates are expected for Eastern Europe, the highest – for Southern Europe, with Central, Northern and Western clusters in between. The Northern countries have been assigned lower target external net migration rates in comparison with Western Europe due to their slightly more peripheral position in the European migratory system. The highest values for Southern Europe reflect their recent migration history, post-colonial ties and the related migrant networks, as well as their proximity to the important sending countries like Turkey and North Africa. The targets for the Low and High variants need to be specified allowing for reasonable deviations from the Base scenario, given the assumptions on the global socio-economic situation mentioned before. Quantification of the assumptions is discussed in details in the next subsection.

6.2. Quantification of the assumptions

With regard to the population exchange with the countries other than the 27 ones under study, assumptions on net migration for the particular countries have been made in terms of crude numbers of migrants. The forecasted variable is thus the "external" net migration (*ENM*). The initial forecasted values for 2002 have been estimated as total net migration, reported by the countries themselves, less net migration among the 27 European countries under study.

Assumptions on target values of net migration from the outside world are also by necessity judgemental, due to the higher uncertainty related to the predictions of international migration on a global scale. As proposed in the previous section of this paper, for the purpose of scenario setting, the countries have been grouped in five clusters, according to the similar levels of socio-economic development, common migration history, as well as the geographic and cultural proximity. The following cluster-specific target "external" net migration rates (*ENMR*) per 1,000 population have been assumed for three forecast variants (Table 7):

Table 7. Target "external" net migration rates per 1,000 population for 2052

No.	Cluster	Countries	Target *ENMR* per 1,000 population		
			Low	Base	High
1	South-Eastern Europe	Bulgaria, Romania	0.0	1.0	2.0
2	Central Europe	Estonia, Latvia, Lithuania, Poland, Slovak Republic	0.25	1.5	3.0
3	Northern Europe	Denmark, Finland, Norway, Sweden,	0.5	2.0	4.0
4	Western Europe	Austria, Belgium, Czech Rep., France, Germany, Hungary, Ireland, Luxembourg, the Netherlands, Switzerland, U.K.	1.0	2.5	5.0
5	Southern Europe	Greece, Italy, Portugal, Slovenia, Spain	1.5	3.0	6.0

Source: Own elaboration

The *ENMR* rates have been further transformed into crude target *ENM* numbers multiplying by the 2002 population size of particular countries. The results have been taken as target values for 2052 (ENM_{2052}). The initial and target *ENM* values have been bridged by the means of an exponential interpolation, according to the formula:

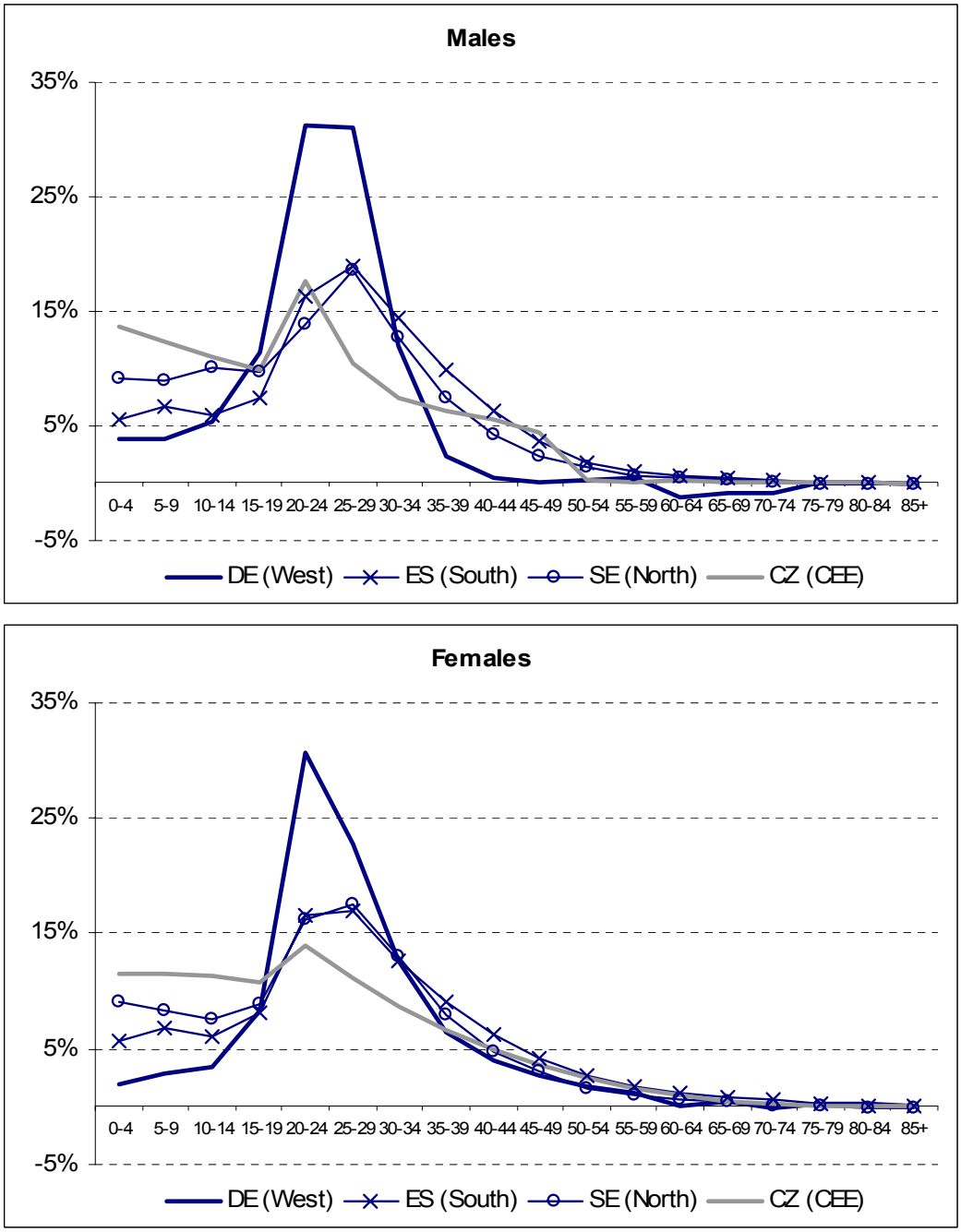
$$ENM_t = ENM_{2052} + (ENM_{2002} - ENM_{2052}) \cdot \exp[-r \cdot (t - 2002)],$$

where t denotes year and r the growth rate, assumed to equal 0.05. Such a curve ensures a smooth passage from ENM_{2002} to ENM_{2052} and the stabilisation of the *ENM* by the end of the forecast period.

With respect to sex and age distributions of the "external" migrants, cluster-specific assumptions have been made, on the basis of clustering presented in Section 4. For Western, Northern and Southern Europe, three countries have been chosen as typical: Germany, Sweden and Spain. Due to unavailability of similar data for the Central and South-Eastern Europe, the schedules have been estimated on the basis of the Czech statistics. The sex-specific age distributions of 'net migrants' from outside the system of 27 countries under study has been calculated in the form of shares of the overall total, as shown in Figure 4.

It is worth noting that the proposed distributions reflect slight propensity to return, especially among males above 60 years of age. For the remaining clusters, net migration remains positive for almost all age groups, with only very minor exceptions.

Figure 4. Age schedules of the net "external" migrants, shares of the total



Source: Eurostat / NewCronos, own calculations

7. Summary and conclusions

Forecasting international migration is a very difficult task, due to the high level of uncertainty associated with this phenomenon. As migration is highly sensitive to three unpredictable factors: migration policies, economic and political developments, the results of the forecasts are in many cases uncertain. Therefore, we created and quantified the knowledge-based scenarios, applying a methodology widely used in demographic forecasting, in order to accommodate the possible impact of economic factors.. We have modified the much used methodology, trying to incorporate in our considerations the expected migration policy changes. This solution addresses, to some extent, the criticism of many existing forecasts of migration. Still, we did not consider the consequences of possible future political disruptions, in particular, the armed conflicts.

The presented analysis assumes that the increase of emigration from the new EU member and accession countries to Western Europe is going to be temporary by nature and thus in the long run a declining trend of this phenomenon can be anticipated. To a lesser extent, an increase of population movements in the opposite direction can be also expected. The methodology of scenario-setting proposed in this paper implicitly assumes that the overall directions of the current intra-European flows will prevail throughout the forecast horizon. In the long run, the stabilisation of the intra-European migratory phenomena is envisaged, with an increasing impact of migration from outside Europe, as the whole continent is expected to become more and more attractive to the immigrants from less developed regions of the world. Notably, this will increasingly be the case of Central and South-Eastern European countries, being both migration destinations and possible ways of transit to the West.

Summing up, it is expected that in the Base scenario all the new EU members will eventually become immigration countries by 2020, except for Bulgaria and Romania, for which the net migration is going to remain negative throughout the forecast period. In the High scenario, the change of the dominant direction of migration flows is expected to happen earlier, including the two Eastern Balkan candidate countries. In the Low scenario, negative net migration is assumed to prevail in all Central and Eastern European countries but the Czech Republic, Hungary and Slovenia. With respect to the two components of the overall net migration of the countries under study, it can be clearly seen that the population exchange with the regions of the world other than the 27 countries under study becomes increasingly more important than the intra-European migratory movements.

There is a strong demand for the forecasts of the future migration streams, motivated by the necessity to know, to what extent can international population movements offset the changes of the population and labour force structures resulting from the ageing processes. In that respect, the analysis presented in this paper can be therefore seen as a contribution to

satisfying that demand, as it constitutes a part of the larger project, devoted to forecasting and simulating population and labour force developments in Europe.

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ISSN 1732-0631
ISBN 83-920313-8-5

Printed in Poland